ENVIRONMENT AGENCY AUSTRIA umweltbundesamt

# Proficiency Testing Scheme für die Wasseranalytik - Realproben

## AZ7 Arzneimittel, Industriechemikalien und Zuckerersatzstoffe

# Proficiency Testing Scheme for Water Analysis - natural water samples

## AZ7 Pharmaceuticals, industrial chemicals and artificial sweeteners

# BERICHT / REPORT

Probenversand / Sample dispatch: 09.06.2020

**Ausgabe/Edition 1: 20.07.2020**

Dieser Report umfasst 275 Seiten.
This report comprises 275 pages.

**Anbieter der Eignungsprüfung / Provider of the proficiency test:**
**Anschrift / Address:** Umweltbundesamt GmbH
Spittelauer Lände 5
1090 Vienna/Austria
**E-Mail:** ringversuche@umweltbundesamt.at
**Tel:** +43 (0) 1 31304 4334

**Website deutsch:** www.umweltbundesamt.at/ringversuche
www.ifatest.at

**Website english:** https://www.umweltbundesamt.at/en/proficiency-testing
www.ifatest.eu

**Koordination und technische Leitung Eignungsprüfungen / coordinator and technical management:**
Dipl.-Ing. Monika Denner

**Verantwortlich für die Durchführung der Eignungsprüfungsrunde / Responsible for the implementation of this proficiency test:**
Dipl.-Ing. Johannes Urteil, Martha Schmid MSc
Tel.: +43 (0) 1 31304 4334

**Verantwortlich für die Freigabe des Berichts / Responsible for authorizing the report:**
Dipl.-Ing. Monika Denner
Leitung Eignungsprüfungen für den Bereich chemische Analytik / Management for proficiency tests for chemical analysis

| umweltbundesamt | **Unterzeichner** | Monika Christine Denner |
|---|---|---|
| | **Datum/Zeit-UTC** | 2020-07-21T16:40:15+02:00 |
| **Prüfinformation** | Diese Unterschrift ist gemäß EU Verordnung Nr. 910/2014 (eIDAS) der handschriftlichen Unterschrift grundsätzlich rechtlich gleichgestellt. Prüfung unter: http://www.signaturpruefung.gv.at | |

## Inhaltsverzeichnis / Table of Contents

# D1. Beschreibung des Ringversuchs

## D1.1. Ausgestaltung und Durchführung

- Anzahl der Anmeldungen: 16
- Anzahl der übermittelten Datensätze: 16
- Probenversand: 09.06.2020
- Einsendeschluss der Daten: 07.07.2020

Die Ergebnisabgabe erfolgte auf elektronischem Weg mittels passwortgeschützter Online-Dateneingabe. Beim Abschluss der Dateneingabe bestätigte der Teilnehmer die vollständige und korrekte Eingabe aller Daten und die Freigabe der Ergebnisse zur Auswertung.

Zur Anonymisierung der Ergebnisse wurde jedem Labor willkürlich ein Laborcode zugeteilt.

## D1.2. Beschreibung der Prüfgegenstände

Die Probenahme von Oberflächenwasser erfolgte am 05.06.2020 und die Probenahme von gereinigtem Abwasser erfolgte am 05.06.2020. Das Probenmaterial umfasste:

- 1 Probe Oberflächenwasser (AZ7 A)
- 1 Probe gereinigtes Abwasser (AZ7 B)

Alle Proben wurden anschließend bis zur weiteren Verarbeitung gekühlt gelagert (4 +/- 3°C). Die o.a. Proben wurden bei 40µm filtriert und im Rührkessel zusätzlich mit einzelnen Substanzen dotiert.

Das Abfüllen der Proben erfolgte unter ständigem Rühren (Rührkessel). Die Stabilisierung erfolgte durch Kühlung und durch den Zusatz von Natriumazid.

Die homogenen Prüfgegenstände wurden am 09.06.2020 verschickt.

Jedes Teilnehmerlabor erhielt:

- 2 Proben zu je 2000 ml, abgefüllt in jeweils 2 x 1000 ml Alu-Flaschen

## D1.3. Anweisungen für die Teilnehmer

Aus Stabilitätsgründen wurde empfohlen bis spätestens 17.06.2020 mit den Analysen zu beginnen.

Den Teilnehmern stand die Wahl der Analysenmethode bzw. der verwendeten Norm frei, welche mit ihrem Routineverfahren übereinstimmen sollte. Eine Übersicht der angewendeten Methoden findet sich unter E9.

## D1.4. Kontrollanalytik zur Bewertung der Homogenität

Im Zuge der Abfüllung wurden zu willkürlichen Zeitpunkten mehrere Aliquote pro Probe zur Kontrollanalytik entnommen.
Es wurden für die A- bzw. B-Probe jeweils n=5 Kontrollproben sowie n=1 undotierte Realprobe dem Labor zur Analyse übergeben.

Alle Parameter wurden in der Prüfstelle am Umweltbundesamt (Prüfstelle für Umwelt-, GVO- & Treibstoffanalytik) zeitnah zum Probenversand analysiert (17.06.2020), die Analysen wurden im Zeitraum 09.07.-15.07.2020 abgeschlossen (Acesulfam AZ7A 09.07.2020, Saccharin AZ7A, B 14.07.-15.07.2020).

Im Zuge der Auswertung wurde die relative Standardabweichung zwischen den Kontrollprobenabfüllungen bewertet und mit der Vergleichsstandardabweichung beim aktuellen Ringversuch verglichen.
Die Ergebnisse der Kontrollanalytik sind in der parameterorientieren Auswertung (E.7.) in Form von Mittelwerten ± Messunsicherheit als Kontrollwert (control test value) ± U gelistet (jeweils angegeben als erweiterte Messunsicherheit, k=2).

## D1.5. Trendtest zur Bewertung der Stabilität

Die Bewertung der Stabilität der Prüfgegenstände (Realproben) erfolgte auf Basis der Datenstatistik aus den vergangenen Runden für Realproben im Zeitraum 2013 bis 2019.

Um die ausreichende Stabilität der Prüfgegenstände der aktuellen Eignungsprüfungsrunde bis zum Abgabetermin zu überprüfen, wurde die Darstellung der Teilnehmerergebnisse nach Analysendatum ausgewertet und auf systematische Trends geprüft (unauffällig). Durch Darstellung der Teilnehmerergebnisse nach Abfüllreihenfolge wurde auf das Vorliegen möglicher systematischer Trends der Ergebnisse geprüft (unauffällig).

Aufgrund der bisherigen Erfahrungen und aufgrund der Bewertungsgrundlagen der aktuellen Eignungsprüfungsrunde gilt die Stabilität der Prüfgegenstände im empfohlenen Zeitraum für die Analyse bis zum Abgabeschluss als gewährleistet.

### D1.6. Ermittlung des zugewiesenen Wertes

Die Ergebnisse der Analysen mussten spätestens bis zum 07.07.2020 beim Veranstalter vorliegen. Später eingehende Werte wurden nicht berücksichtigt.

Im Zuge der Plausibilitätsprüfung der Daten (z.B. Check korrekte Einheiten, Messunsicherheitsangabe, …) wurden die Teilnehmer mit auffälligen Ergebnissen zum erneuten Datencheck der Eingabe und um Rückmeldung binnen 24 h aufgefordert.

Nach Abschluss der Plausibilitätsprüfung, wurde der Ausreißertest nach Hampel durchgeführt und die Ausreißer ermittelt. Die von diesem Test auffällig eingestuften Werte wurden in der Auswertung gekennzeichnet („H“). In begründeten Fällen, z.B. wenn der Ausreißertest nach Hampel nicht anwendbar ist (z.B. Ergebnisse liegen sehr eng beieinander oder überwiegend selber Zahlenwert bzw. bei wenig abgegebenen Daten mit sehr hoher Streuung), kann eine Ausreißereliminierung nach weiteren Kriterien erfolgen (z.B. Dean- und Dixon Test bzw. manuelle Ausreißerdefinition aufgrund Expertenbefund). Diese Vorgangsweise wird nach Anwendung unter Punkt D4 des Berichts dokumentiert.

Die weitere Auswertung erfolgte gemäß ISO 5725-2. Eine statistische Auswertung der Ringversuchsdaten erfolgte erst ab zumindest 6 gültigen, nummerischen Ergebnissen pro Parameter. Ergebnisse kleiner Bestimmungs- oder Nachweisgrenze wurden bei den Berechnungen nicht berücksichtigt.

Der zugewiesene Wert wird im Normalfall jeweils als der ausreißerbereinigte Mittelwert über alle übermittelten Ergebnisse gebildet.

Bei sehr hohen Streuungen der Teilnehmerergebnisse von über 50 % oder bei mangelhafter Rückführbarkeit der statistischen Kenndaten aus den ausreißerbereinigten Ergebnissen der Teilnehmer auf den Mittelwert des Kontrolllabores bzw. einer zu geringen Anzahl an ausreißerbereinigten Ergebnissen über die Gruppe der akkreditierten Labore, kann die Situation auftreten, dass kein zugewiesener Wert für den aktuellen Ringversuch festgelegt werden kann und daher keine Bewertung der Teilnehmerergebnisse für diesen Parameter möglich ist. Ein entsprechender Hinweis wird im Bericht unter E7 bei der informativen Auswertung angebracht. Im Rahmen der internen Qualitätssicherung der Teilnehmer kann ein Vergleich mit den Ergebnissen des Kontrolllabors durchgeführt werden. Diese Vorgehensweise wird bei Anwendung jeweils parameter- und probenbezogen unter Punkt D4 des Berichts dokumentiert.

# D2. Kriterien der Leistungsbewertung

## D2.1. Leistungskriterium z-Score

Als Basis zur Berechnung der Wiederfindungsraten sowie der z-Scores wurde der ausreißerbereinigte Mittelwert über alle übermittelten Ergebnisse herangezogen.

Die Ermittlung der z-Scores erfolgte gemäß nachfolgender Formel:

$$z - score = \frac{x_i - \overline{X}}{Kriterium}$$

Dabei ist:

| | |
|---|---|
| $x_i$ | Messergebnis des teilnehmenden Labors |
| $\overline{X}$ | zugewiesener Wert<br>Sollwert für die Leistungsbewertung der Teilnehmer (angegeben auf 3 signifikante Stellen); im Regelfall: ausreißerbereinigter Mittelwert der Teilnehmerergebnisse. Eine davon abweichende Vorgehensweise wird unter Punkt D4 des Berichts beschrieben. |
| *Kriterium* | Vergleichsstandardabweichung berechnet aus den Statistiken für reale Wasserproben der vorangegangenen Runden im Zeitraum 2013 bis 2019 (RSDpooled) bzw. aus den ausreißerbereinigten Teilnehmerergebnissen (sR) des aktuellen Ringversuchs (falls noch weniger als 6 vorangegangene Runden für A und B-Proben vorlagen).<br>In begründeten Fällen (z.B. Ergebnisse Realproben nahe an Mindestbestimmungsgrenze oder regulatorischer Vorgaben) erfolgt die Festlegung nach Expertenbefund und die Vorgangsweise wird unter Punkt D4 des Berichts beschrieben. |

## D2.2. Leistungskriterium $E_n$-Score

Für die realen Wasserproben erfolgen seit 2019 zusätzliche Bewertungen unter Einbeziehung der erweiterten Messunsicherheiten der Teilnehmer und der erweiterten Messunsicherheit des zugewiesenen Wertes, gemäß $E_n$-Score. Diese Auswertungen werden für die Teilnehmer im Bericht unter Punkt E8, jeweils im Anschluss an die z-Score Auswertung dargestellt.

Die Ermittlung der $E_n$-Scores erfolgte gemäß nachfolgender Formel:

$$E_n - score = \frac{x_i - \bar{X}}{\sqrt{U(x_i)^2 + U(\bar{X})^2}}$$

Dabei ist:

| | |
|---|---|
| $x_i$ | Messergebnis des teilnehmenden Labors |
| $\overline{X}$ | zugewiesener Wert<br>Sollwert für die Leistungsbewertung der Teilnehmer (angegeben auf 3 signifikante Stellen); im Regelfall: ausreißerbereinigter Mittelwert der Teilnehmerergebnisse. Eine davon abweichende Vorgehensweise wird unter Punkt D4 des Berichts beschrieben. |
| U($x_i$) | erweiterte Messunsicherheit des Messergebnisses (Teilnehmerergebnis), k=2 |
| U($\bar{X}$) | erweiterte Messunsicherheit des zugewiesenen Wertes, k=2 |

### D2.3. Leistungsbewertung z-Score und $E_n$-Score

**Interpretation der z-Scores:**

- |z-Score| ≤ 2.0 Ergebnis gut
- 2.0 < |z-Score| < 3.0 Ergebnis fragwürdig
- |z-Score| ≥ 3.0 Ergebnis nicht zufriedenstellend

Hinweis: Bei der Bewertung mittels z-Score wird die Messunsicherheit der Teilnehmer nicht mitberücksichtigt. Der Vergleich der Abweichung zum zugewiesenen Wert erfolgt über das Kriterium.

**Interpretation der $E_n$-Scores:**

- |$E_n$-Score| ≤ 1.0 zufriedenstellende Leistung
- |$E_n$-Score| > 1.0 nicht zufriedenstellende Leistung

Hinweis: Bei der Bewertung mittels $E_n$-Score erfolgt die Berücksichtigung der erweiterten Messunsicherheiten der Teilnehmer und des zugewiesenen Wertes. |$E_n$-Score| > 1.0 können darauf hinweisen, dass die Unsicherheitsschätzungen überprüft oder ein Messproblem korrigiert werden muss.

## D3. Darstellung und Interpretation der Messergebnisse

In der parameterorientierten Auswertung ist eine tabellarische Übersicht mit den Messergebnissen inklusive der Unsicherheit (± U), der Wiederfindung zum zugewiesenen Wert und dem berechneten z-Score dargestellt. Weiterhin werden unter Anmerkungen die Ausreißer gekennzeichnet. Die in der Tabelle angeführten Ergebnisse werden auch grafisch dargestellt.

In der laborientierten Auswertung werden pro Labor in anonymisierter Form die Ergebnisse der einzelnen Labore als Messergebnis ± U sowie die Wiederfindungen und die ermittelten z-Scores bezugnehmend auf das Kriterium dargestellt. Weiters werden die $E_n$-Scores unter Berücksichtigung der erweiterten Unsicherheiten in unabhängigen Tabellen ausgegeben. Die laborientierten Auswertungen enthalten jeweils die Bewertungsgrundlagen wie zugewiesener Wert samt erweiterter Messunsicherheit sowie das Kriterium.

Eine Erläuterung zu den Tabellen und Grafiken kann Punkt D.5. entnommen werden.

## D4. Anmerkungen zur Auswertung

Wie unter Punkt D2 ersichtlich, können die z-Scores auch unter Einbeziehung der Vergleichsstandardabweichung der ausreißerbereinigten Teilnehmerergebnisse des aktuellen Ringversuchs berechnet werden. Das kann zur Folge haben, dass es bei Parametern mit hoher Ergebnisstreuung dazu kommen kann, dass der Bereich z-Score - 2 bis z-Score + 2 einen ungewöhnlich hohen Wiederfindungsbereich abdeckt. Umgekehrt führt eine sehr geringe Streuung der Teilnehmerergebnisse dazu, dass z-Score - 2 bis z-Score + 2 einen ungewöhnlich kleinen Wiederfindungsbereich abdeckt.

Die Wiederfindungsrate wird unabhängig von der Streuung der Ergebnisse, als prozentuelle Abweichung vom zugewiesenen Wert berechnet und sollte bei der Bewertung von Ergebnissen im Rahmen des internen Qualitätsmanagementsystems der teilnehmenden Labore berücksichtigt werden.

Als Ergebnis einer Langzeitauswertung über aktuell 7 Eignungsprüfungsrunden (2013 - 2019) in Realproben wurden Kriterien (RSDpool) zur Ergebnisbewertung berechnet. Diese wurden im Zuge der Auswertung den relativen Vergleichs-standardabweichungen (vR) des aktuellen Ringversuchs gegenübergestellt.

Parameter Amidotrizoesäure, Diclofenac, Sulfamethoxazol, Benzotriazol, Acesulfam, Cyclamat und Sucralose Probe AZ7 A und Parameter Amidotrizoesäure, Carbamazepin, Diclofenac, Iopamidol, Sulfamethoxazol, Benzotriazol, Acesulfam und Atenolol Probe AZ7 B: Die auf Basis der Teilnehmerergebnisse berechneten Sollwerte lagen außerhalb der Messunsicherheit des Kontrollwertes und es ist über das Kontrolllabor keine Rückführbarkeit möglich. Der zugewiesene Wert wurde daher über die ausreißerbereinigten Mittelwerte aus der Gruppe der akkreditierten Teilnehmer berechnet.

Bei Ibuprofen Probe AZ7 B lagen die Daten der Teilnehmerergebnisse eng beieinander, daher wurden die Hampel-Ausreißer zusätzlich nach Dean-Dixon (0,05) geprüft und die Ergebnisse von LC0002 dem Datensatz wieder zugeordnet (kein

Dean-Dixon-Ausreißer). Analog erfolgte die Prüfung der zunächst definierten Hampel-Ausreißer bei 10,11-Dihydroxo-10,11-Dihydroxycarbamazepin bei Probe AZ7 B und die Ergebnisse von LC0007 und LC0010 (keine Dean-Dixon-Ausreißer 0,05) wurden dem Datensatz zugeordnet.

Parameter Bisoprolol, Diazepam und Saccharin Probe AZ7 A sowie 4-Formylaminoantipyrin, Bisoprolol und Sucralose: Aufgrund einer geringen Anzahl an übermittelten gültigen Teilnehmerergebnissen bzw. aufgrund des geringen Gehaltes in den Proben konnte kein Sollwert berechnet werden. Für diese Parameter empfehlen wir einen Vergleich mit den Ergebnissen des Kontrolllabors.

## D5. Erläuterung zu Tabellen und Grafiken

### D5.1. Angaben und Abkürzungen in Tabellen

| | |
|---|---|
| Parameter | Allgemeine Bezeichnung des Analysenparameters |
| Probe | Bezeichnung der übermittelten Probe |
| Einheit | Vorgegebene Einheit für Messwert und Ergebnisunsicherheit (z.B. µg/l) |
| Zugewiesener Wert | Sollwert für die Leistungsbewertung der Teilnehmer (angegeben auf 3 signifikante Stellen) |
| U (k=2) | erweiterte Unsicherheit (k=2) des zugewiesenen Wertes, (angegeben auf 3 signifikante Stellen) |
| Kriterium | Vorgabewert zur Ermittlung des z-Scores in der angegebenen Einheit (angegeben auf 3 signifikante Stellen) |
| Kriterium [%] | Vorgabewert zur Ermittlung des z-Scores in % des zugewiesenen Wertes (angegeben auf 2 signifikante Stellen) |
| Mittelwert | Ausreißerbereinigter Mittelwert über die Teilnehmer-ergebnisse (angegeben auf 3 signifikante Stellen) |
| VB (99%) | 99% Vertrauensbereich (angegeben auf 3 signifikante Stellen) |
| Minimum | Minimales abgegebenes Messergebnis, ausreißerbereinigt (angegeben auf 3 signifikante Stellen) |
| Maximum | Maximales abgegebenes Messergebnis, ausreißerbereinigt (angegeben auf 3 signifikante Stellen) |
| sR | Vergleichsstandardabweichung, berechnet aus den ausreißerbereinigten Teilnehmerergebnissen des aktuellen Ringversuchs (angegeben auf 3 signifikante Stellen) |
| vR | relative Vergleichsstandardabweichung in %, berechnet aus den ausreißerbereinigten Teilnehmerergebnissen des |

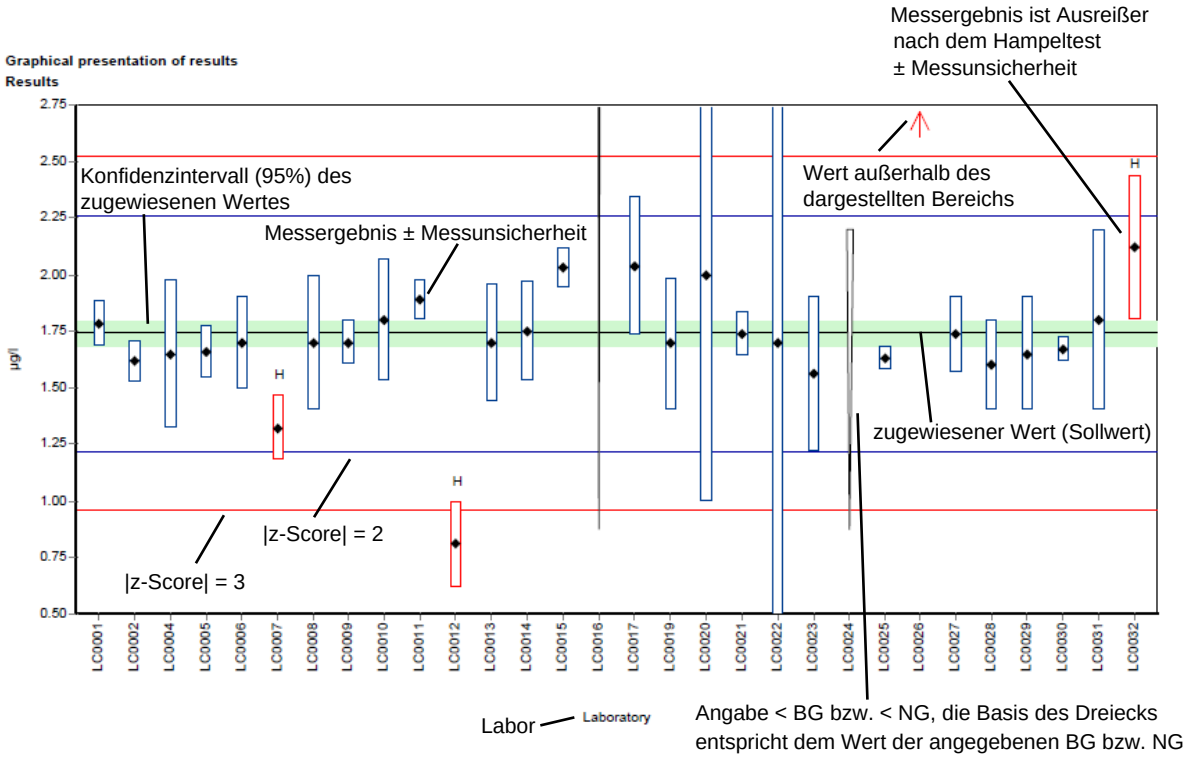
| | |
|---|---|
| | aktuellen Ringversuchs bezogen auf den Mittelwert (angegeben auf 2 signifikante Stellen) |
| Kontrollwert ± U (k=2) | Mittelwert der Kontrollmessungen des Veranstalters ± erweiterte Ergebnisunsicherheit des Kontrollwertes (jeweils angegeben auf 3 signifikante Stellen) |
| Laborcode | anonymisierte, eindeutige Teilnehmerkennung im jeweiligen Ringversuch |
| Messwert | einzelne(r) Messwert(e) lt. Teilnehmerangabe (maximal 5 Nachkommastellen dargestellt) |
| Messergebnis | Für die Bewertung herangezogenes Ergebnis lt. Teilnehmerangabe (maximal 5 Nachkommastellen dargestellt).<br>Bei Eignungsprüfungsrunden mit Vorgabe von unabhängigen Mehrfachbestimmungen, entspricht dies dem berechneten Mittelwert aus den einzelnen Messwerten der Teilnehmer. |
| ± U | kombinierte Messunsicherheit ohne Erweiterungsfaktor (k=1) lt. Teilnehmerangabe (maximal 5 Nachkommastellen dargestellt) |
| BG | Bestimmungsgrenze |
| NG | Nachweisgrenze |
| WF | Wiederfindungsrate in %, bezogen auf den zugewiesenen Wert (angegeben auf 3 signifikante Stellen, dargestellt maximal 1 Nachkommastelle) |
| MW | Mittelwert |
| z-Score | Abweichung des Messergebnisses zum zugewiesenen Wert, ausgedrückt als Vielfaches des Kriteriums (angegeben auf 3 signifikante Stellen, dargestellt maximal 2 Nachkommastellen) |
| $E_n$-Score | Abweichung des Messergebnisses zum zugewiesenen Wert, ausgedrückt als Vielfaches der kombinierten Messunsicherheiten, bestehend aus erweiterter Unsicherheit des zugewiesenen Wertes und der erweiterten Unsicherheit der Messergebnisse der Teilnehmer (angegeben auf 3 signifikante Stellen, dargestellt maximal 2 Nachkommastellen).<br>Beim $E_n$-Score erfolgt die Berücksichtigung der Messunsicherheit der Teilnehmer. |
| - | Keine Daten übermittelt bzw. keine Berechnung möglich |
| Anmerkungen | Anmerkungen zum jeweiligen Messergebnis (z.B. H, FN, FP) |
| H | Ausreißer nach dem Hampel-Test |

| | |
|---|---|
| FN | Falsch negativ – Messergebnis kleiner Bestimmungs- bzw. Nachweisgrenze dessen Betrag die Bedingungen eines Ausreißers nach dem Hampeltest erfüllt. |
| FP | Falsch positiv – Falls aufgrund des geringen Analytgehalts kein zugewiesener Wert ermittelt werden kann (n < 6), wird der Median der Beträge der übermittelten Nachweis- bzw. Bestimmungsgrenzen ermittelt. Als falsch positiv wird ein Messergebnis bewertet, welches diesen Median um mehr als 100 % übersteigt. |
| Standardabweichung | Vergleichsstandardabweichung berechnet aus den Teilnehmerergebnissen des aktuellen Ringversuchs (angegeben auf 3 signifikante Stellen) |
| rel. Standardabweichung | relative Vergleichsstandardabweichung in %, berechnet aus den Teilnehmerergebnissen des aktuellen Ringversuchs bezogen auf den Mittelwert (angegeben auf 3 signifikante Stellen) |
| n | Anzahl der Messergebnisse |

## D5.2. Graphische Darstellung der Ergebnisse

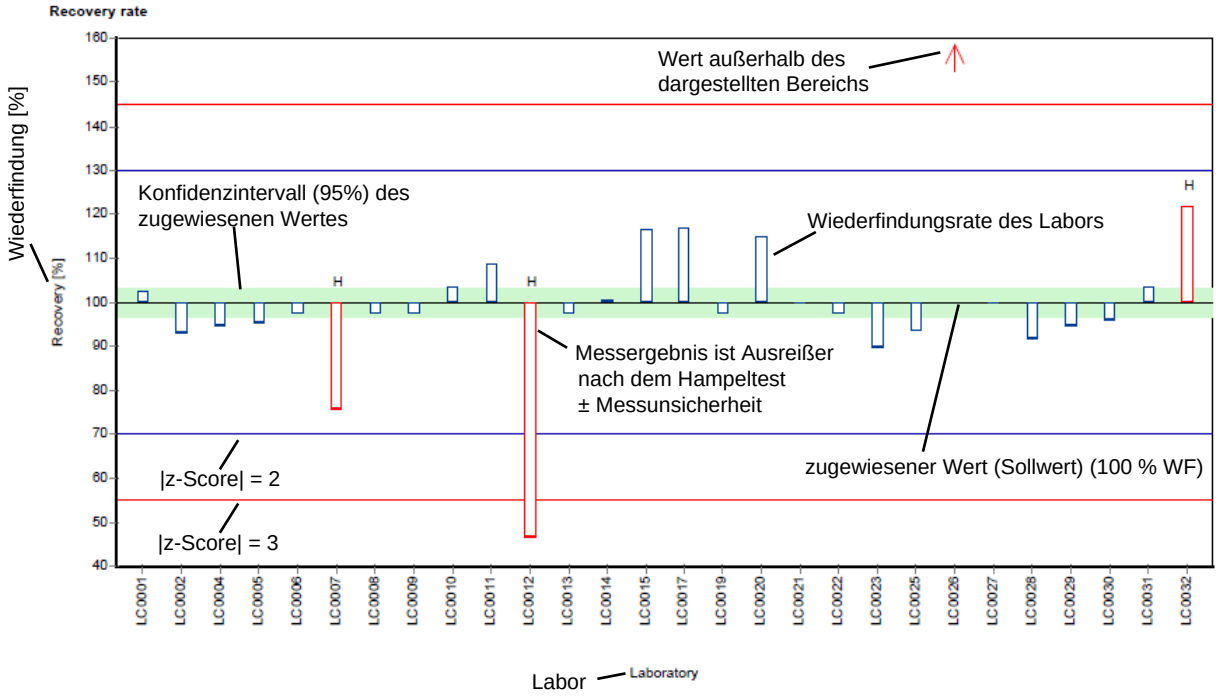
Nachfolgend wird die graphische Darstellung anhand von kommentierten Beispieldiagrammen erläutert.

**Beispieldiagramm: Messwerte**



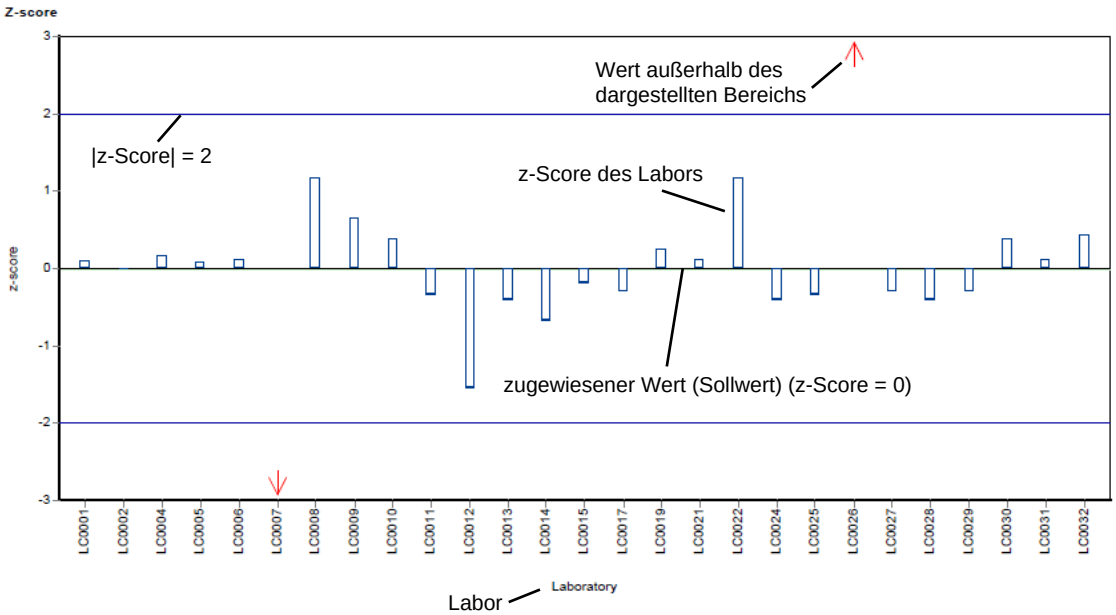

Unterschiedliche Analysenmethoden werden mit unterschiedlichen Farben kenntlich gemacht.

**Beispieldiagramm: Wiederfindung zum zugewiesenen Wert**



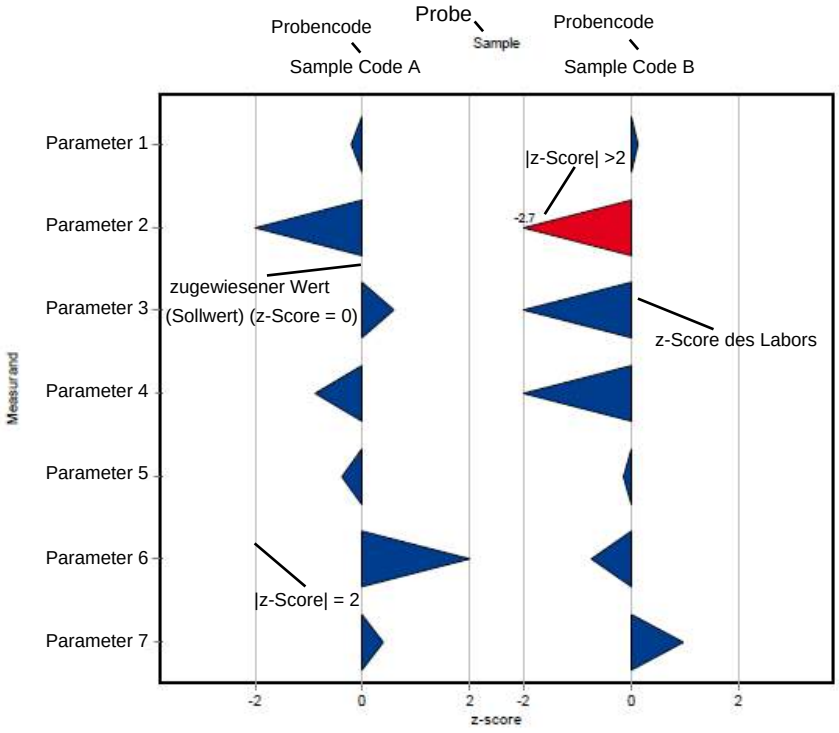

Unterschiedliche Analysenmethoden werden mit unterschiedlichen Farben kenntlich gemacht.

**Beispieldiagramm: z-Score**

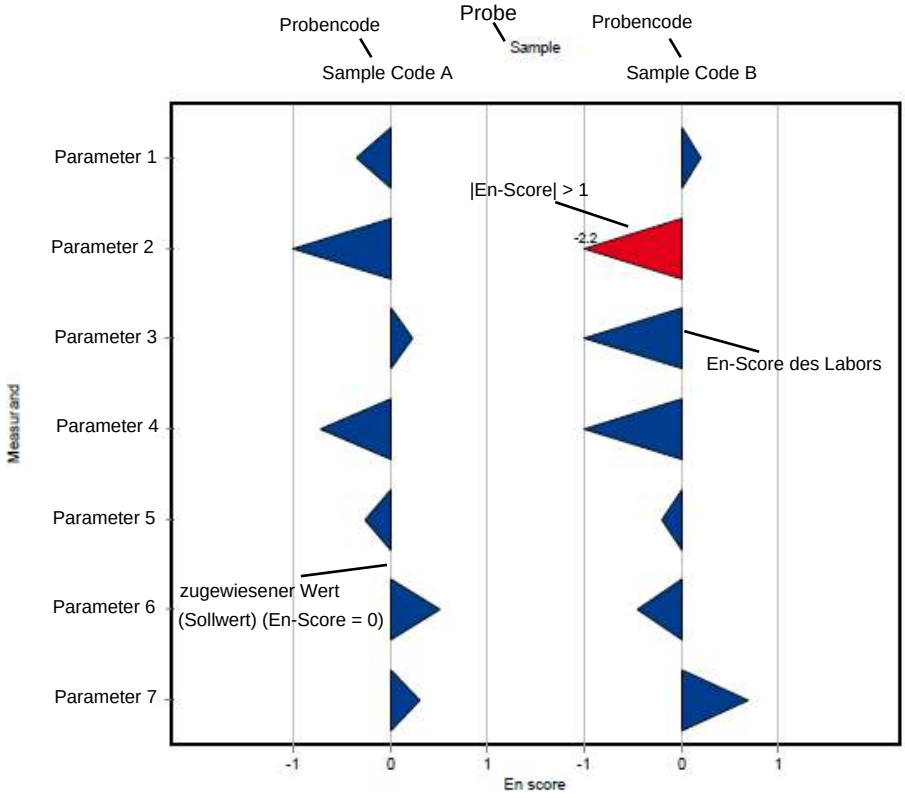



Unterschiedliche Analysenmethoden werden mit unterschiedlichen Farben kenntlich gemacht.

**Beispieldiagramm: z-Score (laborientierte Auswertung)**




**Beispieldiagramm: En-Score (laborientierte Auswertung)**



# D6. Zusammenfassung

## D6.1. Tabelle der zugewiesenen Werte

| Parameter | Probe | Einheit | zugewiesener Wert | ± | U (k=2) | Kriterium | Kriterium [%] |
|---|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrin | AZ7 A | µg/l | 0.0407 | ± | 0.00447 | 0.0067 | 16 |
| | AZ7 B | µg/l | 4.4 | ± | 0.419 | 0.592 | 13 |
| 4-Formylaminoantipyrin | AZ7 A | µg/l | 0.249 | ± | 0.0291 | 0.0385 | 15 |
| | AZ7 B | µg/l | - | ± | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepin | AZ7 A | µg/l | 0.0843 | ± | 0.0124 | 0.0175 | 21 |
| | AZ7 B | µg/l | 1.06 | ± | 0.194 | 0.258 | 24 |
| Acesulfam | AZ7 A | µg/l | 0.0657 | ± | 0.00386 | 0.0112 | 17 |
| | AZ7 B | µg/l | 1.97 | ± | 0.102 | 0.336 | 17 |
| Amidotrizoesäure | AZ7 A | µg/l | 0.464 | ± | 0.0635 | 0.0876 | 19 |
| | AZ7 B | µg/l | 1.09 | ± | 0.223 | 0.378 | 35 |
| Atenolol | AZ7 A | µg/l | 0.316 | ± | 0.0247 | 0.0349 | 11 |
| | AZ7 B | µg/l | 0.377 | ± | 0.0648 | 0.0792 | 21 |
| Benzotriazol | AZ7 A | µg/l | 0.147 | ± | 0.00852 | 0.0177 | 12 |
| | AZ7 B | µg/l | 11.1 | ± | 0.511 | 1.33 | 12 |
| Bisoprolol | AZ7 A | µg/l | - | ± | - | - | - |
| | AZ7 B | µg/l | - | ± | - | - | - |
| Carbamazepin | AZ7 A | µg/l | 0.301 | ± | 0.0116 | 0.0391 | 13 |
| | AZ7 B | µg/l | 0.426 | ± | 0.0317 | 0.0554 | 13 |
| Cyclamat | AZ7 A | µg/l | 0.0311 | ± | 0.00459 | 0.00533 | 17 |
| | AZ7 B | µg/l | 0.276 | ± | 0.0279 | 0.0369 | 13 |
| Diazepam | AZ7 A | µg/l | - | ± | - | - | - |
| | AZ7 B | µg/l | 0.382 | ± | 0.0467 | 0.0618 | 16 |
| Diclofenac | AZ7 A | µg/l | 0.229 | ± | 0.0172 | 0.0321 | 14 |
| | AZ7 B | µg/l | 2.84 | ± | 0.103 | 0.398 | 14 |
| Ibuprofen | AZ7 A | µg/l | 0.272 | ± | 0.0143 | 0.0226 | 8.3 |
| | AZ7 B | µg/l | 0.0835 | ± | 0.00942 | 0.0117 | 14 |
| Iopamidol | AZ7 A | µg/l | 0.314 | ± | 0.0414 | 0.0687 | 22 |
| | AZ7 B | µg/l | 32.8 | ± | 7.95 | 11.3 | 35 |
| Metoprolol | AZ7 A | µg/l | 0.147 | ± | 0.0105 | 0.0368 | 25 |
| | AZ7 B | µg/l | 0.235 | ± | 0.0183 | 0.0587 | 25 |
| Saccharin | AZ7 A | µg/l | - | ± | - | - | - |
| | AZ7 B | µg/l | 1.39 | ± | 0.0833 | 0.306 | 22 |
| Sotalol | AZ7 A | µg/l | 0.167 | ± | 0.0145 | 0.0368 | 22 |
| | AZ7 B | µg/l | 0.206 | ± | 0.0241 | 0.0452 | 22 |
| Sucralose | AZ7 A | µg/l | 0.337 | ± | 0.0483 | 0.101 | 30 |
| | AZ7 B | µg/l | - | ± | - | - | - |
| Sulfamethoxazol | AZ7 A | µg/l | 0.208 | ± | 0.0115 | 0.0249 | 12 |
| | AZ7 B | µg/l | 0.0444 | ± | 0.00343 | 0.00532 | 12 |

## D6.2. Zusammenfassung der ausreißerbereinigten Ringversuchsergebnisse

| Parameter | Probe | Anzahl Labors für Berechnung | Anzahl Ausreißer Labors | Einheit | Mittelwert | ± VB (99%) | Minimum | Maximum | sR | vR [%] |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrin | AZ7 A | 9 | 0 | µg/l | 0.0407 | ± 0.0067 | 0.03 | 0.05 | 0.0067 | 16 |
| | AZ7 B | 8 | 0 | µg/l | 4.4 | ± 0.628 | 3.19 | 5.22 | 0.592 | 13 |
| 4-Formylaminoantipyrin | AZ7 A | 7 | 0 | µg/l | 0.249 | ± 0.0437 | 0.194 | 0.318 | 0.0385 | 15 |
| | AZ7 B | 5 | 1 | µg/l | - | ± - | 3.3 | 3.8 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepin | AZ7 A | 8 | 0 | µg/l | 0.0843 | ± 0.0186 | 0.059 | 0.111 | 0.0175 | 21 |
| | AZ7 B | 7 | 0 | µg/l | 1.06 | ± 0.292 | 0.826 | 1.58 | 0.257 | 24 |
| Acesulfam | AZ7 A | 14 | 0 | µg/l | 0.0657 | ± 0.00563 | 0.051 | 0.074 | 0.00702 | 11 |
| | AZ7 B | 12 | 0 | µg/l | 2.03 | ± 0.16 | 1.71 | 2.35 | 0.185 | 9.1 |
| Amidotrizoesäure | AZ7 A | 11 | 1 | µg/l | 0.459 | ± 0.0784 | 0.301 | 0.643 | 0.0866 | 19 |
| | AZ7 B | 11 | 0 | µg/l | 1.03 | ± 0.323 | 0.319 | 1.56 | 0.358 | 35 |
| Atenolol | AZ7 A | 8 | 0 | µg/l | 0.316 | ± 0.037 | 0.27 | 0.366 | 0.0349 | 11 |
| | AZ7 B | 8 | 0 | µg/l | 0.383 | ± 0.072 | 0.288 | 0.506 | 0.0679 | 18 |
| Benzotriazol | AZ7 A | 13 | 0 | µg/l | 0.146 | ± 0.0103 | 0.12 | 0.16 | 0.0123 | 8.4 |
| | AZ7 B | 12 | 0 | µg/l | 11 | ± 0.59 | 9.96 | 12.5 | 0.681 | 6.2 |
| Bisoprolol | AZ7 A | 3 | 0 | µg/l | - | ± - | 0.132 | 0.151 | - | - |
| | AZ7 B | 3 | 0 | µg/l | - | ± - | 0.254 | 0.29 | - | - |
| Carbamazepin | AZ7 A | 15 | 0 | µg/l | 0.301 | ± 0.0173 | 0.257 | 0.34 | 0.0224 | 7.4 |
| | AZ7 B | 14 | 0 | µg/l | 0.414 | ± 0.0389 | 0.34 | 0.48 | 0.0485 | 12 |
| Cyclamat | AZ7 A | 9 | 0 | µg/l | 0.0313 | ± 0.00537 | 0.021 | 0.04 | 0.00537 | 17 |
| | AZ7 B | 7 | 0 | µg/l | 0.276 | ± 0.0418 | 0.217 | 0.317 | 0.0369 | 13 |
| Diazepam | AZ7 A | 0 | 0 | µg/l | - | ± - | - | - | - | - |
| | AZ7 B | 7 | 0 | µg/l | 0.382 | ± 0.0701 | 0.284 | 0.46 | 0.0618 | 16 |
| Diclofenac | AZ7 A | 16 | 0 | µg/l | 0.229 | ± 0.023 | 0.194 | 0.302 | 0.0307 | 13 |
| | AZ7 B | 13 | 2 | µg/l | 2.82 | ± 0.12 | 2.57 | 3.06 | 0.144 | 5.1 |
| Ibuprofen | AZ7 A | 10 | 0 | µg/l | 0.272 | ± 0.0215 | 0.242 | 0.309 | 0.0226 | 8.3 |
| | AZ7 B | 6 | 1 | µg/l | 0.0835 | ± 0.0141 | 0.074 | 0.105 | 0.0115 | 14 |

| Parameter | Probe | Anzahl Labors für Berechnung | Anzahl Ausreißer Labors | Einheit | Mittelwert | ± | VB (99%) | Minimum | Maximum | sR | vR [%] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Iopamidol | AZ7 A | 11 | 0 | µg/l | 0.314 | ± | 0.0621 | 0.199 | 0.421 | 0.0687 | 22 |
| | AZ7 B | 10 | 0 | µg/l | 29 | ± | 9.5 | 11.4 | 45.2 | 10 | 35 |
| Metoprolol | AZ7 A | 13 | 1 | µg/l | 0.147 | ± | 0.0158 | 0.11 | 0.19 | 0.0189 | 13 |
| | AZ7 B | 12 | 1 | µg/l | 0.235 | ± | 0.0274 | 0.192 | 0.305 | 0.0316 | 13 |
| Saccharin | AZ7 A | 5 | 1 | µg/l | - | ± | - | 0.016 | 0.019 | - | - |
| | AZ7 B | 6 | 0 | µg/l | 1.39 | ± | 0.125 | 1.29 | 1.56 | 0.102 | 7.3 |
| Sotalol | AZ7 A | 11 | 0 | µg/l | 0.167 | ± | 0.0217 | 0.133 | 0.206 | 0.024 | 14 |
| | AZ7 B | 10 | 0 | µg/l | 0.206 | ± | 0.0361 | 0.16 | 0.265 | 0.0381 | 19 |
| Sucralose | AZ7 A | 7 | 0 | µg/l | 0.345 | ± | 0.0666 | 0.226 | 0.398 | 0.0587 | 17 |
| | AZ7 B | 5 | 1 | µg/l | - | ± | - | 10.2 | 12.4 | - | - |
| Sulfamethoxazol | AZ7 A | 14 | 0 | µg/l | 0.206 | ± | 0.0145 | 0.18 | 0.239 | 0.018 | 8.8 |
| | AZ7 B | 10 | 2 | µg/l | 0.042 | ± | 0.00631 | 0.0295 | 0.05 | 0.00665 | 16 |

# E1. Description of the proficiency test

## E1.1. Design and implementation

- Number of registrations: 16
- Number of submitted data records: 16
- Dispatch of samples: 09th June 2020
- Closing date for submission of data: 07th July 2020

The results were submitted electronically by a password-protected online data entry. Upon completion of the data entry, the participant confirmed the complete and correct entry of all data and the authorization of the results for evaluation.

To anonymize results, each laboratory was given a laboratory code on a random basis.

## E1.2. Description of the proficiency test items

The sampling of surface water and the municipal waste water was carried out on 05th of June 2020.

The following samples were made available

- 1 sample surface water (AZ7 A)
- 1 sample municipal waste water (AZ7 B)

Both samples were stored at 4 +/- 3°C until further processing. The samples were filtered (40 µm) and partly spiked with specific substances in the stirring vessel.

The samples were filled into bottles under continuous stirring (stirring vessel) and stabilized by cooling and by addition of sodium azide respectively.

The homogeneous proficiency test items were dispatched on 09th June 2020.

Each participant received:

- 2 samples of 2000 ml each, filled in 2x 1000 ml aluminium bottles each

## E1.3. Instructions for the participants

For reasons of stability, it was recommended to start the analysis by the 17th June 2020 at the latest.

The participants are expected to use the test method or measurement method of their choice, which should be consistent with their routine procedures. In E9. you will find the overview of applied methods in course of the proficiency testing.

## E1.4. Control testing for homogeneity evaluation

During filling of the bottles, aliquots of each sample were collected randomly for control testing. From each of the samples A and B, n=5 control test samples and n=1 unspiked real water sample were transferred to the laboratory for control testing.

All parameters were tested in the testing laboratory at Environment Agency Austria (Prüfstelle für Umwelt-, GVO- & Treibstoffanalytik) close to the time of sample dispatch (17.06.2020), the control testing was finalized between 09th of July and 15th of July 2020 (Acesulfam AZ7A 09.07.2020, Saccharin AZ7A, B 14.07.-15.07.2020).

During evaluation the relative standard deviation between the individual results of the control test samples were assessed by comparison with the reproducibility standard deviation of the actual proficiency test.

In the parameter-oriented evaluation (E.7.), the results of the control testing are given in the form of arithmetic means of the detected concentrations ± expanded measurement uncertainty as control test value ± U (expanded uncertainty, k=2).

## E1.5. Trend test for stability evaluation

The evaluation of stability of the proficiency test items was performed using the data statistics of the results of previous proficiency testing rounds for real water samples of the period from 2013 to 2019.

The assessment of the stability of the proficiency test items of the current round was carried out by evaluation of all participant results sorted by analysis date (until submission deadline): No systematic trends were identified.

Using all participants results, it was furthermore tested if systematic trends could be detected depending on the order in which the bottles were filled for the proficiency test: No systematic trends could be identified.

According to data obtained from previous rounds for real water samples from 2013 to 2019 and based on the trend test evaluation of the current round, the stability of the test items for proficiency testing of real water samples can be confirmed for the recommended analysis period until deadline for submission of data.

## E1.6. Determination of the assigned values

The analytical results had to be made available to the organiser not later than 07th July 2020. Any values received at a later date were not considered.

In the course of the plausibility assessment of all received data (e.g. check for correct units, indication of measurement uncertainty, …) the participants with noticeable results were asked to perform a subsequent data check and to give a prompt feedback within 24 h.

After plausibility assessment an outlier test according to Hampel was performed to identify outliers. Values identified as conspicuous are marked specifically in the parameter-oriented evaluation (‘H’).

In justified cases, for instance, when the outlier test according to Hampel is not applicable (e.g. many similar or identical results of the participants or in case of a very limited number of highly scattering results) a different outlier identification method can be applied (e.g. Dean and Dixon outlier test or manual outlier elimination by expert judgement). In such a case, this procedure is documented in section E4 of the report.

Further data evaluation was performed in accordance with ISO 5725-2. A statistical evaluation of proficiency testing data was only carried out if at least 6 valid results per parameter were available. Results < LOQ or < LOD are not included in the calculation for the assigned value.

The assigned values are normally calculated as the mean over all submitted results, after removal of outliers.

For real water samples in some exceptional cases it might occur, that no assigned value based on participants’ results can be calculated and no evaluation of the participants results can be made. E.g due to large variations in the participant results (vR > 50 %) and/or insufficient traceability of the calculated mean of all participants after outlier-clearing to the mean of control testing or if the number of results (without outliers) of the group of accredited testing laboratories is too low.

In this case, a clear statement in section E7 of the report is made and all provided statistical data are for information only. In section E4 further information is given, when applicable, for each parameter and proficiency test item. In course of the internal quality measures, the participants can compare their results to the control test values.

## E2. Criteria of performance evaluation

### E2.1. Performance criterion z-Score

The adjusted average value (after removal of outliers) for all submitted results was used as a basis for the calculation of recovery rates and z-scores.

z-Scores were calculated on the basis of the following formula:

$$z - score = \frac{x_i - \overline{X}}{Criteria}$$

In this context,

| | |
|---|---|
| $x_i$ | is the measurement value (result) of the participating laboratory; |
| $\overline{X}$ | assigned value<br>the target value for the assessment of the performance of the participants (3 significant digits), normally the average value of the participants‘ results after removal of outliers; if this approach is not applicable, the target value is assigned according to the procedure given in section E4 |
| Criteria | is the reproducibility standard deviation calculated from previous rounds for proficiency testing for real water samples from 2013 to 2019 (as RSD pooled) or from the participants‘ results after removal of outliers (sR) in the current round (if less than 6 previous rounds for the parameters of real water samples A and B are available).<br>Where justified (e.g. results for real water samples are close to minimum quantification limit or in case of regulatory requirements) the criteria is defined by expert judgement and the procedure is clearly described in section E4 of the report. |

### E2.2. Performance criterion $E_n$-Score

Since 2019 additional assessment of the participants’ results using $E_n$-Scores for proficiency testing of real water samples is performed. This additional assessment takes into account the expanded measurement uncertainties of the participants results and the expanded uncertainty of the assigned value and is provided in the laboratory oriented part of the report (see E8 after the z-scores evaluation).

$E_n$-Scores were calculated on the basis of the following formula:

$$E_n - score = \frac{x_i - \bar{X}}{\sqrt{U(x_i)^2 + U(\bar{X})^2}}$$

In this context,

| | |
|---|---|
| $x_i$ | is the measurement value (result) of the participating laboratory |
| $\overline{X}$ | assigned value<br>the target value for the assessment of the performance of the participants (3 significant digits), normally the average value of the participants' results after removal of outliers; if this approach is not applicable, the target value is assigned according to the procedure given in section E4 |
| U( $x_i$ ) | expanded measurement uncertainty for the result of the participating laboratory, k=2 |
| U($\bar{X}$) | expanded measurement uncertainty for the assigned value, k=2 |

### E2.3. Performance evaluation z-Score and $E_n$-Score

## Interpretation of z-Scores:

- |z-Score| ≤ 2.0 good result
- 2.0 < |z-Score| < 3.0 questionable result
- |z-Score| ≥ 3.0 unsatisfactory result

Note: In case of assessment of the participants' performance by z-scores the measurement uncertainty of the participants' results is not taken into account. The difference between result of participants and the assigned value is evaluated by the criteria.

## Interpretation of $E_n$-Scores:

- |$E_n$-Score| ≤ 1.0 satisfactory performance
- |$E_n$-Score| > 1.0 unsatisfactory performance

Note: In case of assessment of the participants' performance by $E_n$-Scores the expanded measurement uncertainties for the results and for the assigned values are taken into account. I$E_n$-ScoreI > 1.0 might indicate to check the measurement uncertainty estimation or might point out to correct a measurement problem.

## E3. Representation and interpretation of measurement results

The parameter-oriented report provides the measurement values (results) including uncertainty (± U), recovery rate, calculated z-Score and the outliers in tabular form. The results listed in the table are also represented graphically.

The laboratory oriented report shows the results of the individual laboratories (anonymous), including the measurement uncertainty (± U), recovery rates, z-Scores and additionally evaluation of $E_n$-Scores on separate pages.

The tables also contain the basis for the data assessment as the assigned values and expanded measurement uncertainties and the criteria.

An annotation of the tables and graphics is given in section E.5.

## E4. Explanatory notes

As explained in section E2, the z-Score can also be calculated using the reproducibility standard deviation, calculated from the participants' results (after removal of outliers) in the relevant test round. It might occur that the z-Score between -2 and 2 covers a large range of measurement values when the variance of the results is high. On the other hand, the range of good results can be very narrow, when the variation of the participants' results is small.

The recovery rate is calculated for the individual result based on the assigned value and is thus independent of the reproducibility standard deviation. In the case of a high variance of the results, participants should also consider recovery rates as additional criteria to decide on the necessity of internal quality assurance measures.

As a result of a long-term evaluation of 7 proficiency testing rounds (2013 - 2019) in real samples, evaluation criteria (RSDpool) were calculated.

These criteria were compared with the relative reproducibility standard deviation (sR) of the current proficiency testing.

Parameters amidotrizoic acid, diclofenac, sulfamethoxazole, benzotriazole, acesulfame, cyclamate and sucralose sample AZ7 A and parameters amidotrizoic acid carbamazepine, diclofenac, iopamidol, sulfamethoxazole, benzotriazole, acesulfame and atenolol sample AZ7 B: The assigned values calculated based on the participant results were outside the measurement uncertainty of the control value and thus traceability could not be proven by this procedure. Therefore, new assigned values were defined by the group of accredited participating laboratories after outlier-assessment.

For Ibuprofen (sample AZ7 B) and 10,11-Dihydro-10,11-Dihydroxycarbamazepine (AZ 7 B) many similar results lead to additional outlier tests according to Dean-Dixon (α=0.05). Finally for Ibuprofen results of LC0002 and for 10,11-Dihydro-10,11-Dihydroxycarbamazepine LC0007 and LC0010 (no outliers according to Dean-Dixon) were evaluated within the dataset.

Parameter bisoprolol, diazepam and saccharin sample AZ7 A and 4-Formylaminoantipyrine, bisoprolol and sucralose sample AZ7 B: Assigned values were not calculated because of the small number of submitted valid results or because of the low content of substances in the samples. For these parameters, we recommend to compare your results with the control test values.

# E5. Annotations on tables and charts

## E5.1. Information and abbreviations in tables

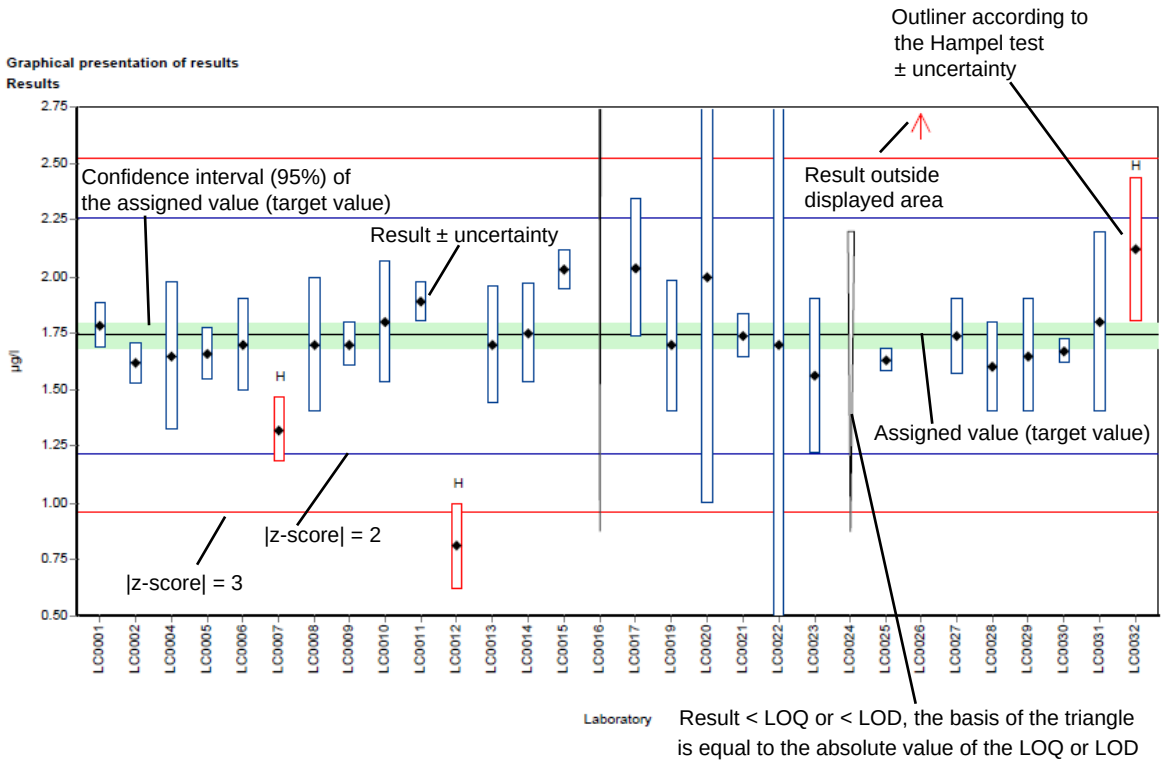
| | |
|---|---|
| Parameter | Analyte identifier |
| Sample | Sample identifier |
| Unit | Given unit for result and uncertainty (e.g. µg/l) |
| Assigned value | Target value for proficiency assessment of the participants (3 significant digits) |
| U (k=2) | Expanded uncertainty (k=2) of the assigned value (3 significant digits) |
| Criteria | Specified value for the determination of the z-score in the given unit (3 significant digits) |
| Criteria [%] | Specified value for the determination of the z-score in % of the assigned value (2 significant digits) |
| Mean | Mean of the participants results, without outliers (3 significant digits) |
| CI (99 %) | 99% confidence interval (3 significant digits) |
| Minimum | Minimum of all submitted results, after removal of outliers (3 significant digits) |
| Maximum | Maximum of all submitted results, after removal of outliers (3 significant digits) |
| SD | Reproducibility standard deviation, calculated from the participants results, after removal of outliers (3 significant digits) |
| RSD % | Reproducibility standard deviation, calculated from the participants results relative to the target value, given in %, after removal of outliers (2 significant digits) |

| | |
|---|---|
| Control test value ± U (k=2) | Mean of control test value ± expanded measurement uncertainty (3 significant digits) |
| Labcode | Laboratory identifier (anonymized) |
| Result | Result as indicated by participant (max. 5 decimal places) |
| ± U | combined measurement uncertainty without expansion factor (k=1), as indicated by participant (max. 5 decimal places) |
| LOQ | Limit of quantification |
| LOD | Limit of detection |
| Recovery | Recovery rate in % based on assigned value (target value) (3 significant digits, max. one decimal place given) |
| z-Score | Deviation of result based on the assigned value (target value) given as a multiple of the criteria (3 significant digits, max. 2 decimal places given) |
| $E_n$-Score | Deviation of result based on the assigned value (target value) given as a multiple of the combined expanded measurement uncertainty of the participant's results and expanded measurement uncertainty for the assigned value (3 significant digits, max. 2 decimal places given).<br>Note: $E_n$-Score assessment takes into account the measurement uncertainty of the participants. |
| - | No data available or no calculation possible |
| Comments | Comment on the respective result (e.g. H, FN, FP) |
| H | Outlier according to Hampel-Test |
| FN | False negative – for a result < LOQ or result < LOD: The absolute value of the LOQ or LOD fulfils the condition of an outlier according to the Hampel test. |
| FP | False positive – for parameters where no target value is available because of a too low analyte content (n < 6): Result that exceeds the median of the absolute values of the transmitted LOQs or LODs by more than 100 %. |
| Standard deviation | Reproducibility standard deviation, calculated from the participants results (3 significant digits) |
| Rel. standard deviation | Reproducibility standard deviation, calculated from the participants results relative to the target value, given in %, (3 significant digits) |
| n | Number of results |

## E5.2. Graphical presentation of results

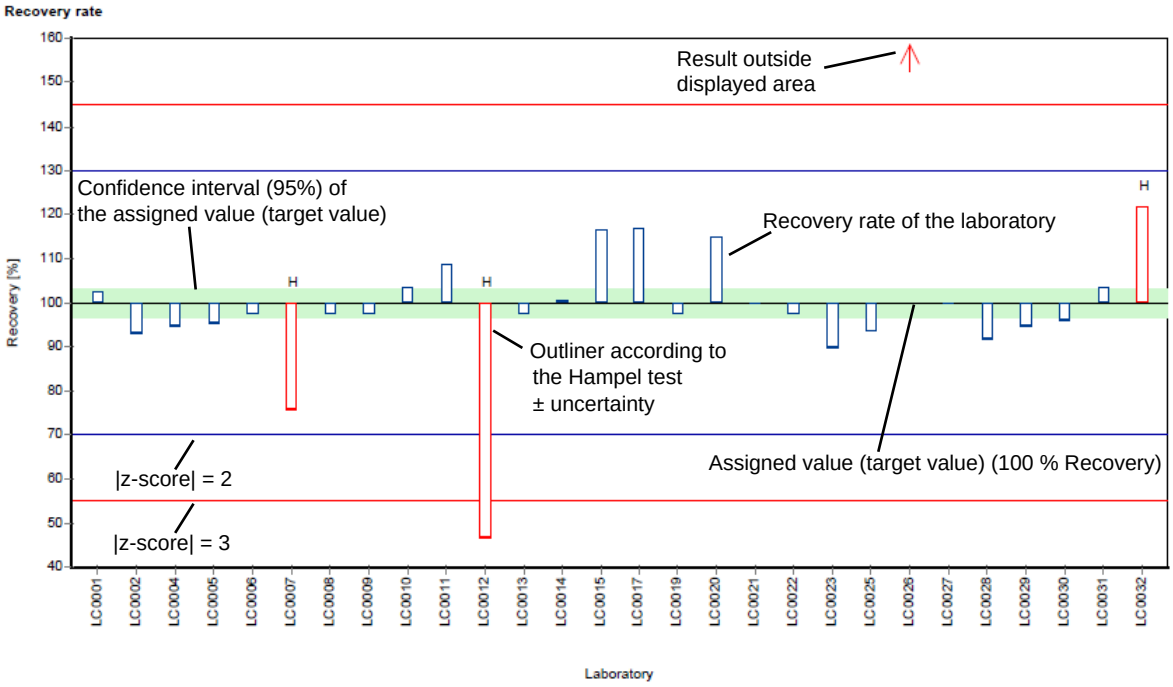
The graphic representation in the report is explained below by means of commented example diagrams:

**Example chart: Results**



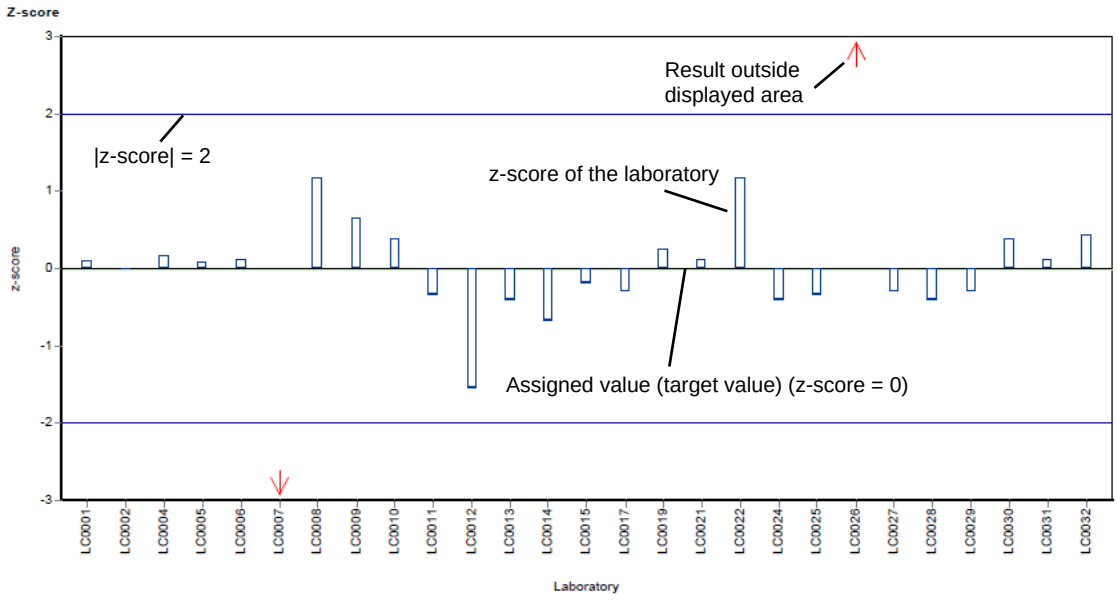

Different analysis methods are represented with different colors.

### Example chart: Recovery



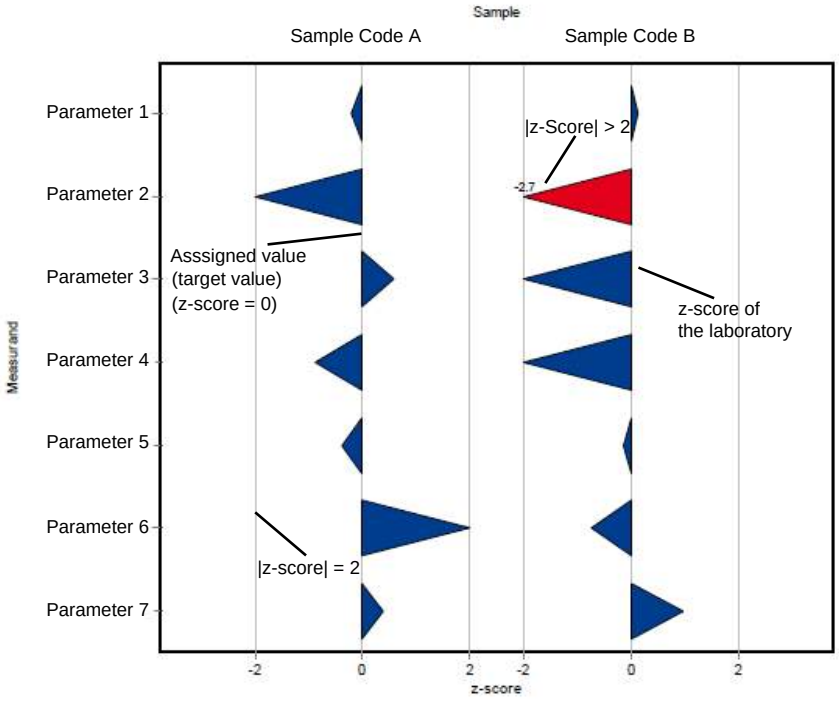

Different analysis methods are represented with different colors.

### Example chart: z-score

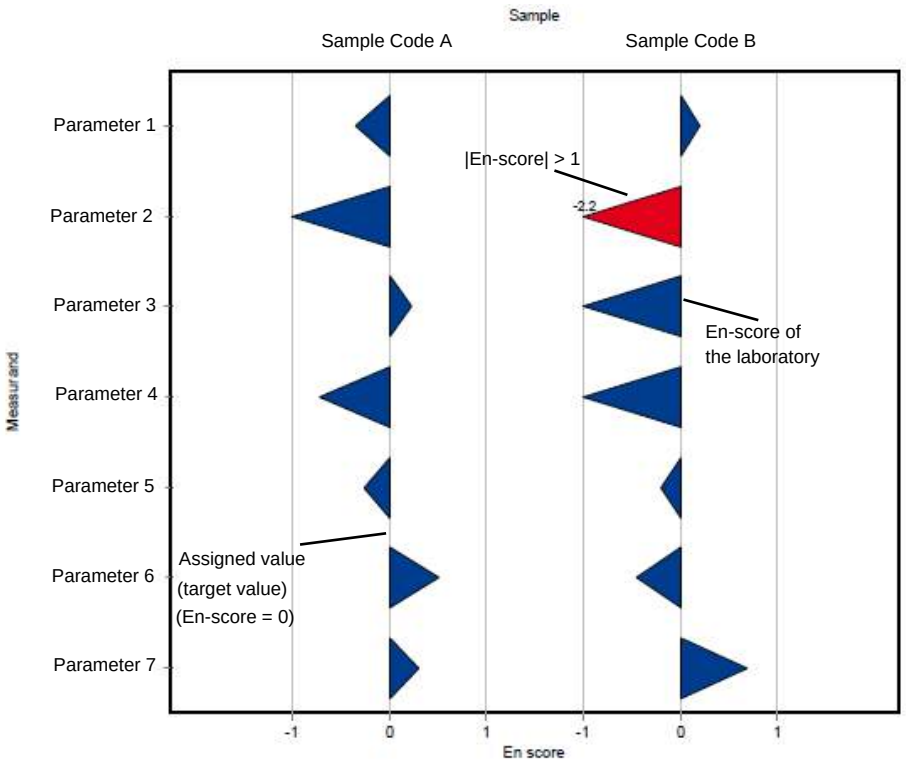



Different analysis methods are represented with different colors.

**Example chart: z-score (laboratory oriented report)**




**Example chart: En-score (laboratory oriented report)**



# E6. Summary

## E6.1. Table of assigned values

| Parameter | Sample | Unit | Assigned value | ± | U (k=2) | Criterion | Criterion [%] |
|---|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | AZ7 A | µg/l | 0.0407 | ± | 0.00447 | 0.0067 | 16 |
| | AZ7 B | µg/l | 4.4 | ± | 0.419 | 0.592 | 13 |
| 4-Formylaminoantipyrine | AZ7 A | µg/l | 0.249 | ± | 0.0291 | 0.0385 | 15 |
| | AZ7 B | µg/l | - | ± | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | AZ7 A | µg/l | 0.0843 | ± | 0.0124 | 0.0175 | 21 |
| | AZ7 B | µg/l | 1.06 | ± | 0.194 | 0.258 | 24 |
| Acesulfame | AZ7 A | µg/l | 0.0657 | ± | 0.00386 | 0.0112 | 17 |
| | AZ7 B | µg/l | 1.97 | ± | 0.102 | 0.336 | 17 |
| Amidotrizoic acid | AZ7 A | µg/l | 0.464 | ± | 0.0635 | 0.0876 | 19 |
| | AZ7 B | µg/l | 1.09 | ± | 0.223 | 0.378 | 35 |
| Atenolol | AZ7 A | µg/l | 0.316 | ± | 0.0247 | 0.0349 | 11 |
| | AZ7 B | µg/l | 0.377 | ± | 0.0648 | 0.0792 | 21 |
| Benzotriazole | AZ7 A | µg/l | 0.147 | ± | 0.00852 | 0.0177 | 12 |
| | AZ7 B | µg/l | 11.1 | ± | 0.511 | 1.33 | 12 |
| Bisoprolol | AZ7 A | µg/l | - | ± | - | - | - |
| | AZ7 B | µg/l | - | ± | - | - | - |
| Carbamazepine | AZ7 A | µg/l | 0.301 | ± | 0.0116 | 0.0391 | 13 |
| | AZ7 B | µg/l | 0.426 | ± | 0.0317 | 0.0554 | 13 |
| Cyclamate | AZ7 A | µg/l | 0.0311 | ± | 0.00459 | 0.00533 | 17 |
| | AZ7 B | µg/l | 0.276 | ± | 0.0279 | 0.0369 | 13 |
| Diazepam | AZ7 A | µg/l | - | ± | - | - | - |
| | AZ7 B | µg/l | 0.382 | ± | 0.0467 | 0.0618 | 16 |
| Diclofenac | AZ7 A | µg/l | 0.229 | ± | 0.0172 | 0.0321 | 14 |
| | AZ7 B | µg/l | 2.84 | ± | 0.103 | 0.398 | 14 |
| Ibuprofen | AZ7 A | µg/l | 0.272 | ± | 0.0143 | 0.0226 | 8.3 |
| | AZ7 B | µg/l | 0.0835 | ± | 0.00942 | 0.0117 | 14 |
| Iopamidol | AZ7 A | µg/l | 0.314 | ± | 0.0414 | 0.0687 | 22 |
| | AZ7 B | µg/l | 32.8 | ± | 7.95 | 11.3 | 35 |
| Metoprolol | AZ7 A | µg/l | 0.147 | ± | 0.0105 | 0.0368 | 25 |
| | AZ7 B | µg/l | 0.235 | ± | 0.0183 | 0.0587 | 25 |
| Saccharin | AZ7 A | µg/l | - | ± | - | - | - |
| | AZ7 B | µg/l | 1.39 | ± | 0.0833 | 0.306 | 22 |
| Sotalol | AZ7 A | µg/l | 0.167 | ± | 0.0145 | 0.0368 | 22 |
| | AZ7 B | µg/l | 0.206 | ± | 0.0241 | 0.0452 | 22 |
| Sucralose | AZ7 A | µg/l | 0.337 | ± | 0.0483 | 0.101 | 30 |
| | AZ7 B | µg/l | - | ± | - | - | - |
| Sulfamethoxazole | AZ7 A | µg/l | 0.208 | ± | 0.0115 | 0.0249 | 12 |
| | AZ7 B | µg/l | 0.0444 | ± | 0.00343 | 0.00532 | 12 |

## E6.2. Summary of results, after removal of outliers

| Parameter | Sample | Number of results for calculation | Number of outliers | Unit | Mean | ± CI (99%) | Minimum | Maximum | sR | vR [%] |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | AZ7 A | 9 | 0 | µg/l | 0.0407 | ± 0.0067 | 0.03 | 0.05 | 0.0067 | 16 |
| | AZ7 B | 8 | 0 | µg/l | 4.4 | ± 0.628 | 3.19 | 5.22 | 0.592 | 13 |
| 4-Formylaminoantipyrine | AZ7 A | 7 | 0 | µg/l | 0.249 | ± 0.0437 | 0.194 | 0.318 | 0.0385 | 15 |
| | AZ7 B | 5 | 1 | µg/l | - | ± - | 3.3 | 3.8 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | AZ7 A | 8 | 0 | µg/l | 0.0843 | ± 0.0186 | 0.059 | 0.111 | 0.0175 | 21 |
| | AZ7 B | 7 | 0 | µg/l | 1.06 | ± 0.292 | 0.826 | 1.58 | 0.257 | 24 |
| Acesulfame | AZ7 A | 14 | 0 | µg/l | 0.0657 | ± 0.00563 | 0.051 | 0.074 | 0.00702 | 11 |
| | AZ7 B | 12 | 0 | µg/l | 2.03 | ± 0.16 | 1.71 | 2.35 | 0.185 | 9.1 |
| Amidotrizoic acid | AZ7 A | 11 | 1 | µg/l | 0.459 | ± 0.0784 | 0.301 | 0.643 | 0.0866 | 19 |
| | AZ7 B | 11 | 0 | µg/l | 1.03 | ± 0.323 | 0.319 | 1.56 | 0.358 | 35 |
| Atenolol | AZ7 A | 8 | 0 | µg/l | 0.316 | ± 0.037 | 0.27 | 0.366 | 0.0349 | 11 |
| | AZ7 B | 8 | 0 | µg/l | 0.383 | ± 0.072 | 0.288 | 0.506 | 0.0679 | 18 |
| Benzotriazole | AZ7 A | 13 | 0 | µg/l | 0.146 | ± 0.0103 | 0.12 | 0.16 | 0.0123 | 8.4 |
| | AZ7 B | 12 | 0 | µg/l | 11 | ± 0.59 | 9.96 | 12.5 | 0.681 | 6.2 |
| Bisoprolol | AZ7 A | 3 | 0 | µg/l | - | ± - | 0.132 | 0.151 | - | - |
| | AZ7 B | 3 | 0 | µg/l | - | ± - | 0.254 | 0.29 | - | - |
| Carbamazepine | AZ7 A | 15 | 0 | µg/l | 0.301 | ± 0.0173 | 0.257 | 0.34 | 0.0224 | 7.4 |
| | AZ7 B | 14 | 0 | µg/l | 0.414 | ± 0.0389 | 0.34 | 0.48 | 0.0485 | 12 |
| Cyclamate | AZ7 A | 9 | 0 | µg/l | 0.0313 | ± 0.00537 | 0.021 | 0.04 | 0.00537 | 17 |
| | AZ7 B | 7 | 0 | µg/l | 0.276 | ± 0.0418 | 0.217 | 0.317 | 0.0369 | 13 |
| Diazepam | AZ7 A | 0 | 0 | µg/l | - | ± - | - | - | - | - |
| | AZ7 B | 7 | 0 | µg/l | 0.382 | ± 0.0701 | 0.284 | 0.46 | 0.0618 | 16 |
| Diclofenac | AZ7 A | 16 | 0 | µg/l | 0.229 | ± 0.023 | 0.194 | 0.302 | 0.0307 | 13 |
| | AZ7 B | 13 | 2 | µg/l | 2.82 | ± 0.12 | 2.57 | 3.06 | 0.144 | 5.1 |
| Ibuprofen | AZ7 A | 10 | 0 | µg/l | 0.272 | ± 0.0215 | 0.242 | 0.309 | 0.0226 | 8.3 |
| | AZ7 B | 6 | 1 | µg/l | 0.0835 | ± 0.0141 | 0.074 | 0.105 | 0.0115 | 14 |
| Iopamidol | AZ7 A | 11 | 0 | µg/l | 0.314 | ± 0.0621 | 0.199 | 0.421 | 0.0687 | 22 |

| Parameter | Sample | Number of results for calculation | Number of outliers | Unit | Mean | ± | CI (99%) | Minimum | Maximum | sR | vR [%] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Iopamidol | AZ7 B | 10 | 0 | µg/l | 29 | ± | 9.5 | 11.4 | 45.2 | 10 | 35 |
| Metoprolol | AZ7 A | 13 | 1 | µg/l | 0.147 | ± | 0.0158 | 0.11 | 0.19 | 0.0189 | 13 |
| | AZ7 B | 12 | 1 | µg/l | 0.235 | ± | 0.0274 | 0.192 | 0.305 | 0.0316 | 13 |
| Saccharin | AZ7 A | 5 | 1 | µg/l | - | ± | - | 0.016 | 0.019 | - | - |
| | AZ7 B | 6 | 0 | µg/l | 1.39 | ± | 0.125 | 1.29 | 1.56 | 0.102 | 7.3 |
| Sotalol | AZ7 A | 11 | 0 | µg/l | 0.167 | ± | 0.0217 | 0.133 | 0.206 | 0.024 | 14 |
| | AZ7 B | 10 | 0 | µg/l | 0.206 | ± | 0.0361 | 0.16 | 0.265 | 0.0381 | 19 |
| Sucralose | AZ7 A | 7 | 0 | µg/l | 0.345 | ± | 0.0666 | 0.226 | 0.398 | 0.0587 | 17 |
| | AZ7 B | 5 | 1 | µg/l | - | ± | - | 10.2 | 12.4 | - | - |
| Sulfamethoxazole | AZ7 A | 14 | 0 | µg/l | 0.206 | ± | 0.0145 | 0.18 | 0.239 | 0.018 | 8.8 |
| | AZ7 B | 10 | 2 | µg/l | 0.042 | ± | 0.00631 | 0.0295 | 0.05 | 0.00665 | 16 |

# E7. Parameterorientierte Auswertung / Parameter oriented report

# Parameter oriented report

## AZ7 A

### 4-Acetylaminoantipyrine

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.0407 ± 0.00447 |
| Criterion | 0.0067 (16 %) |
| Minimum - Maximum | 0.03 - 0.05 |
| Control test value ± U (k=2) | 0.0415 ± 0.0083 |

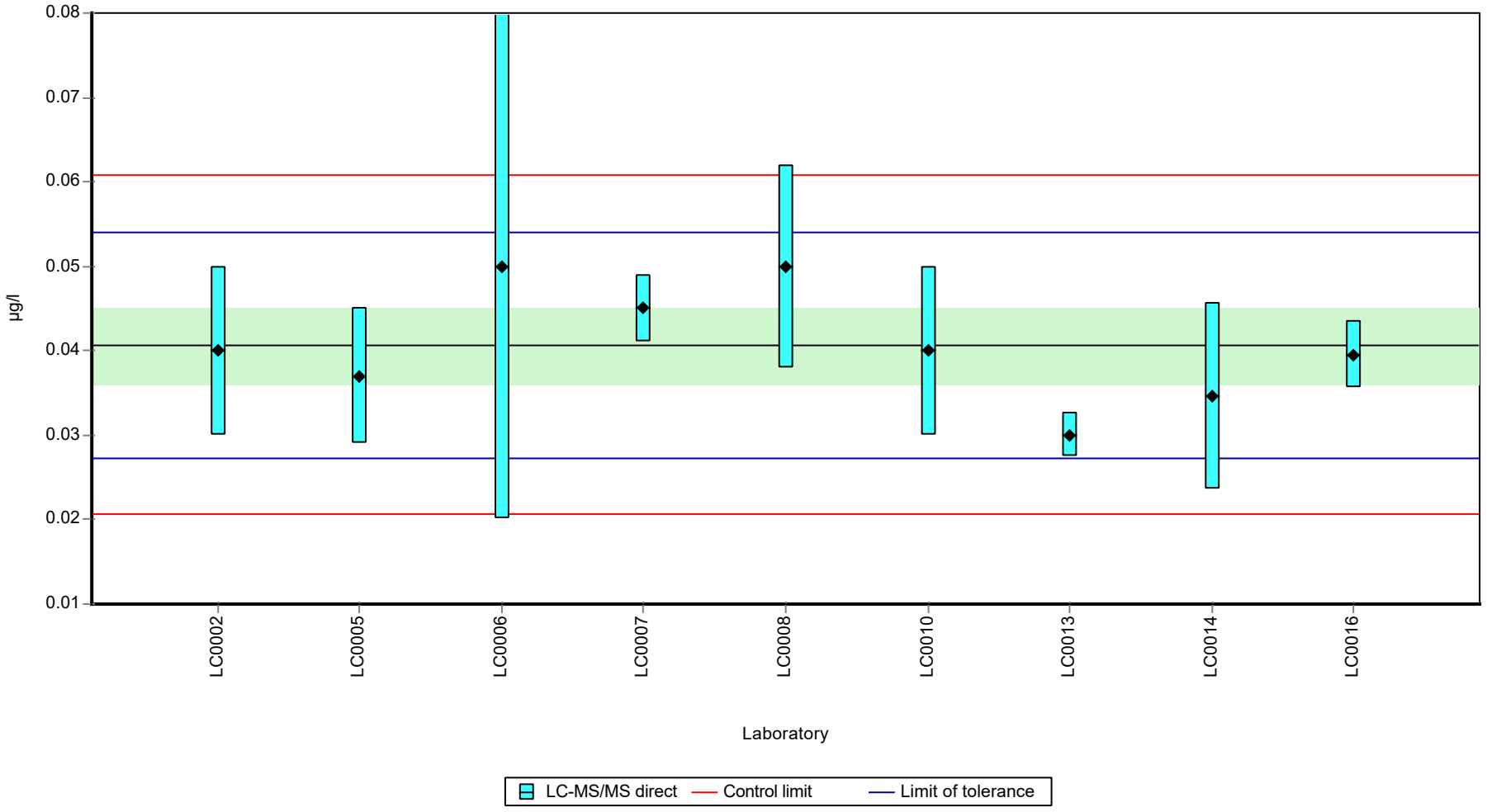
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | 0.04 | 0.01 | 98.3 | -0.1 | |
| LC0003 | - | - | - | - | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.037 | 0.008 | 91 | -0.55 | |
| LC0006 | 0.05 | 0.03 | 123 | 1.39 | |
| LC0007 | 0.045 | 0.004 | 111 | 0.65 | |
| LC0008 | 0.05 | 0.012 | 123 | 1.39 | |
| LC0009 | - | - | - | - | |
| LC0010 | 0.04 | 0.01 | 98.3 | -0.1 | |
| LC0011 | - | - | - | - | |
| LC0012 | - | - | - | - | |
| LC0013 | 0.03 | 0.0026 | 73.8 | -1.59 | |
| LC0014 | 0.0346 | 0.011 | 85.1 | -0.91 | |
| LC0015 | - | - | - | - | |
| LC0016 | 0.0395 | 0.004 | 97.1 | -0.18 | |

**Characteristics of parameter**

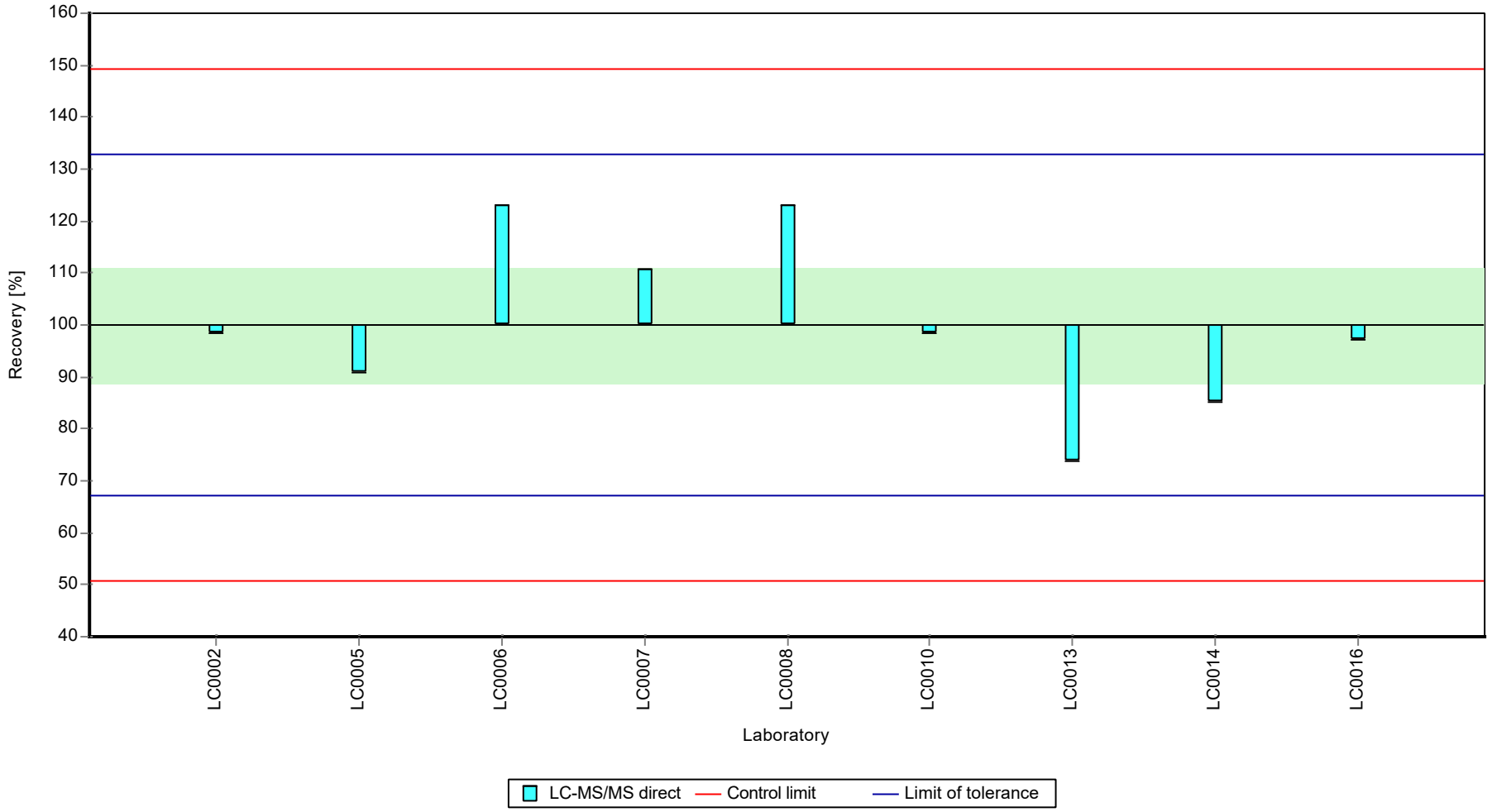
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.0407 ± 0.0067 | 0.0407 ± 0.0067 | µg/l |
| Minimum | 0.03 | 0.03 | µg/l |
| Maximum | 0.05 | 0.05 | µg/l |
| Standard deviation | 0.0067 | 0.0067 | µg/l |
| rel. standard deviation | 16.5 | 16.5 | % |
| n | 9 | 9 | - |

**Graphical presentation of results**

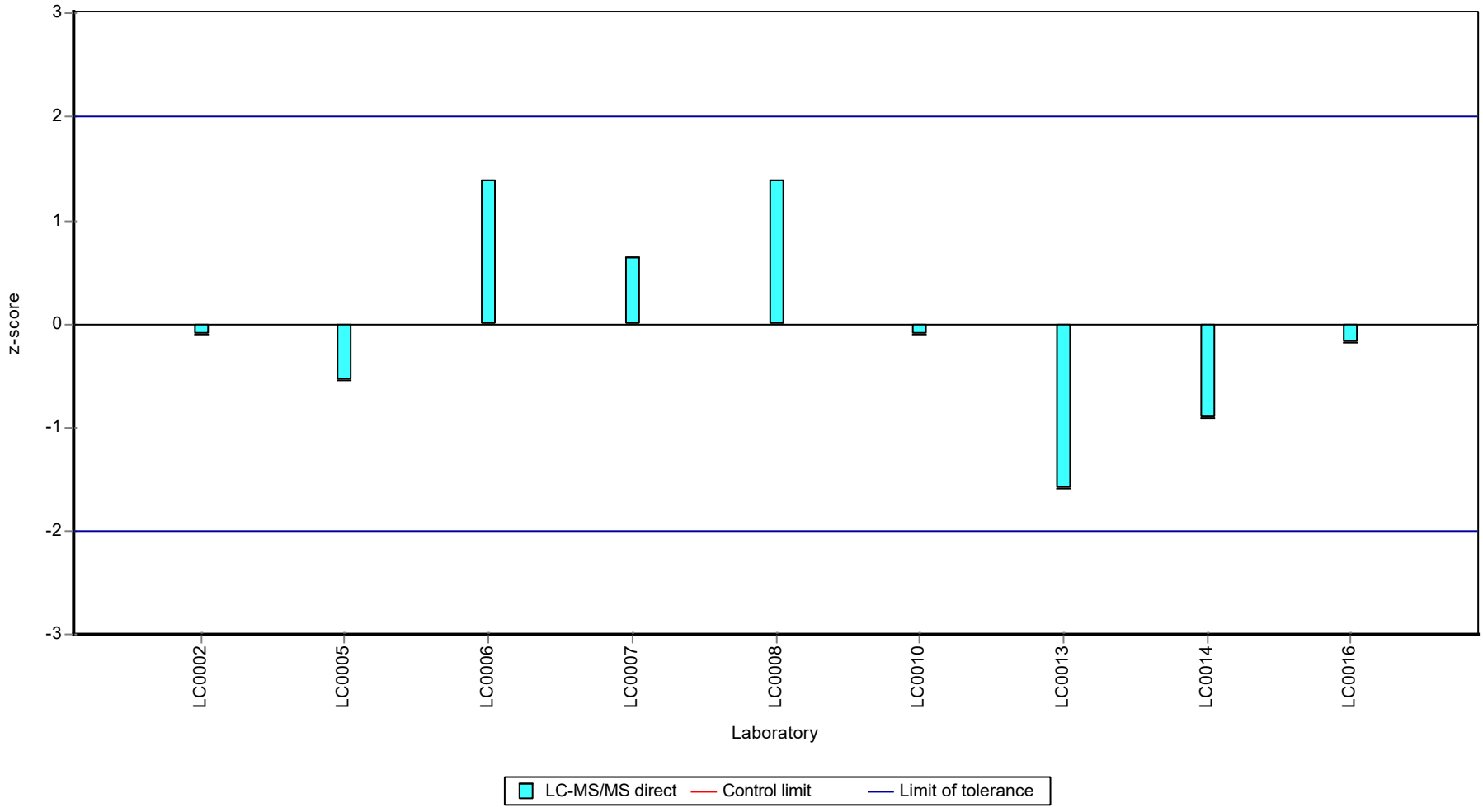
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0002
LC0005
LC0006
LC0007
LC0008
LC0010
LC0013
LC0014
LC0016
Laboratory
LC-MS/MS direct
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 B

### 4-Acetylaminoantipyrine

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 4.4 ± 0.419 |
| Criterion | 0.592 (13 %) |
| Minimum - Maximum | 3.19 - 5.22 |
| Control test value ± U (k=2) | 5.49 ± 1.1 |

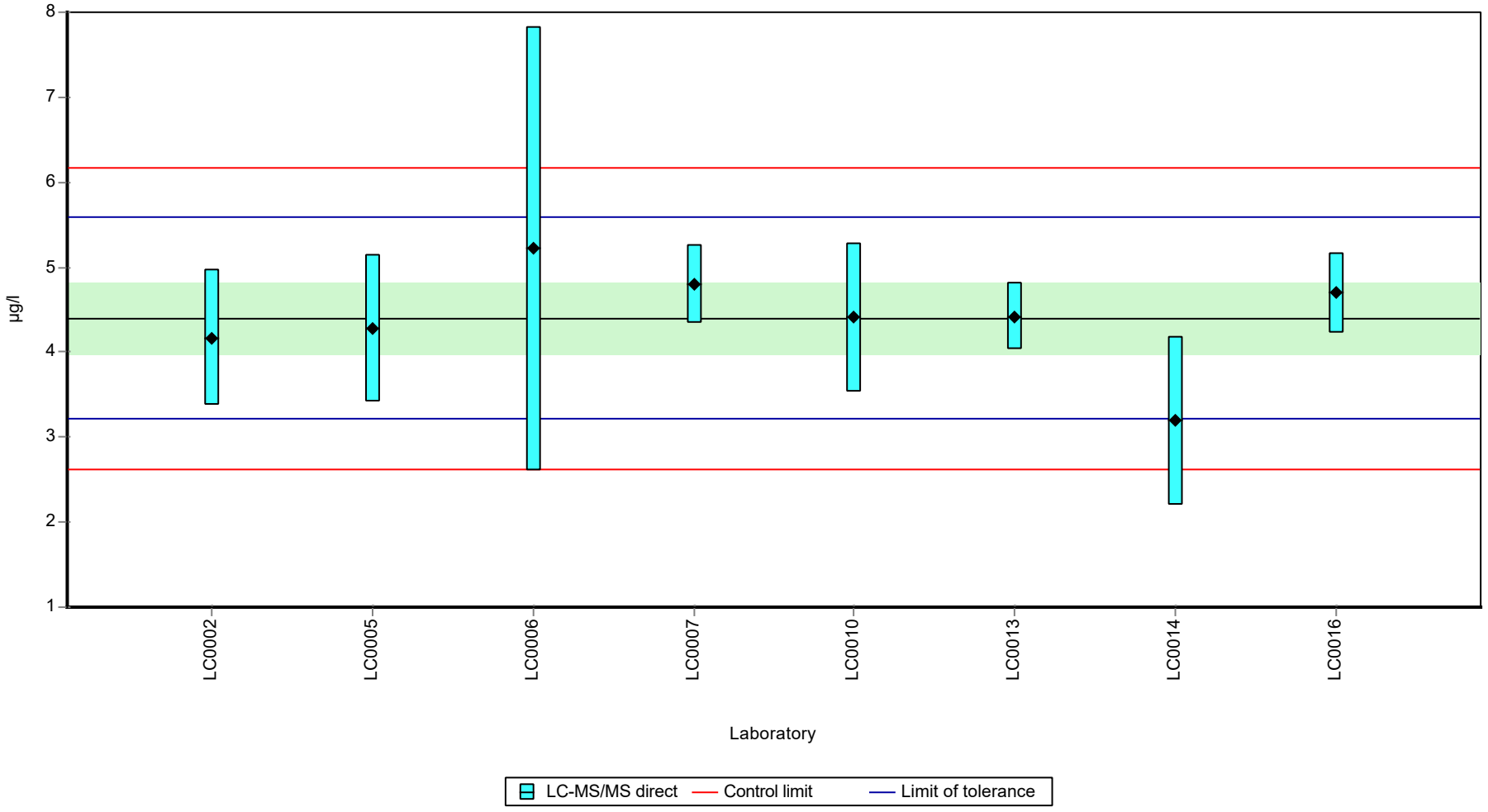
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | 4.172 | 0.8 | 94.9 | -0.38 | |
| LC0003 | - | - | - | - | |
| LC0004 | - | - | - | - | |
| LC0005 | 4.28 | 0.86 | 97.3 | -0.2 | |
| LC0006 | 5.22 | 2.61 | 119 | 1.39 | |
| LC0007 | 4.8 | 0.455 | 109 | 0.68 | |
| LC0008 | - | - | - | - | |
| LC0009 | - | - | - | - | |
| LC0010 | 4.405 | 0.88 | 100 | 0.01 | |
| LC0011 | - | - | - | - | |
| LC0012 | - | - | - | - | |
| LC0013 | 4.42 | 0.39 | 100 | 0.04 | |
| LC0014 | 3.19 | 0.989 | 72.5 | -2.04 | |
| LC0015 | - | - | - | - | |
| LC0016 | 4.7 | 0.47 | 107 | 0.51 | |

**Characteristics of parameter**

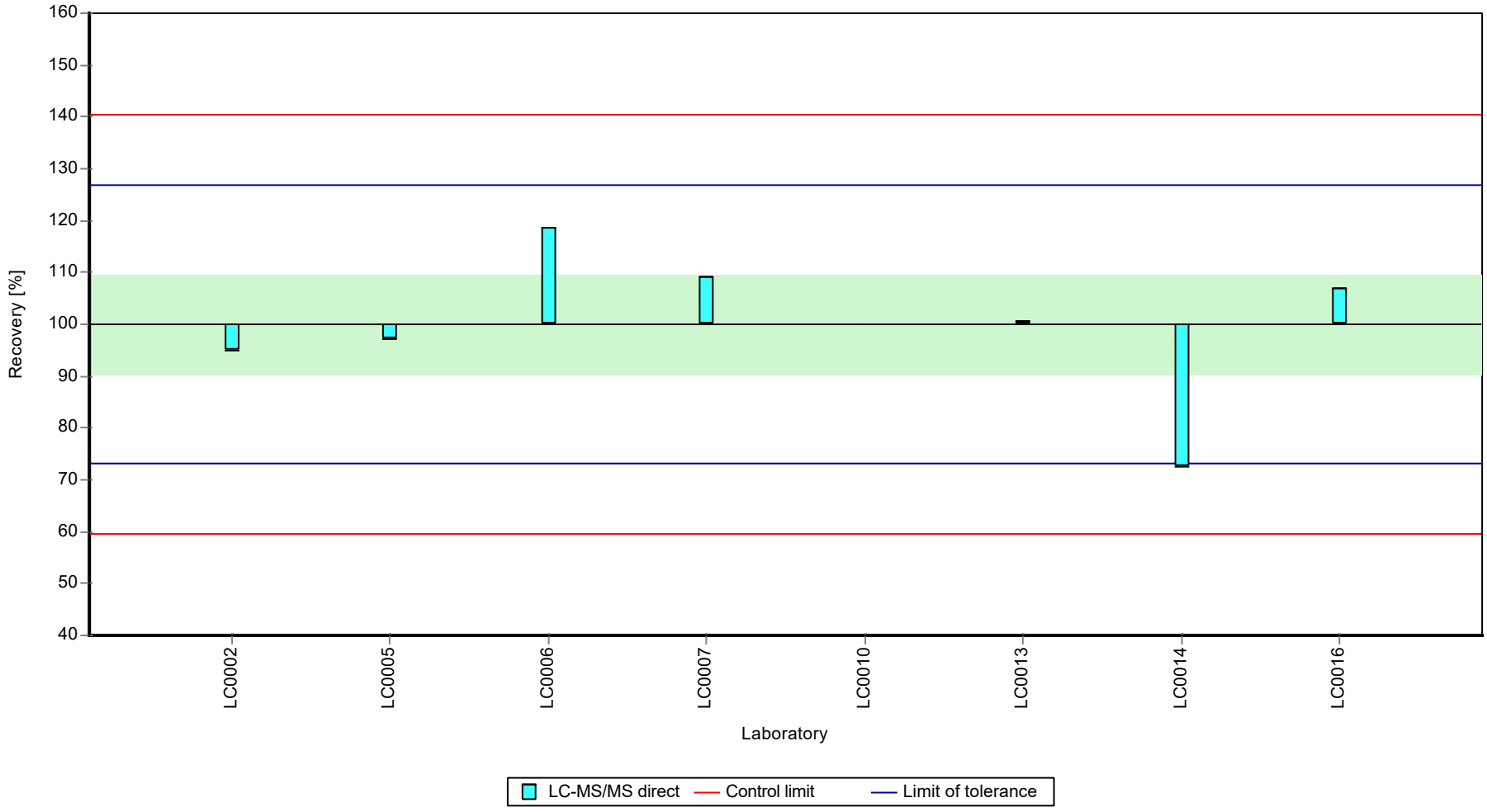
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 4.4 ± 0.628 | 4.4 ± 0.628 | µg/l |
| Minimum | 3.19 | 3.19 | µg/l |
| Maximum | 5.22 | 5.22 | µg/l |
| Standard deviation | 0.592 | 0.592 | µg/l |
| rel. standard deviation | 13.5 | 13.5 | % |
| n | 8 | 8 | - |

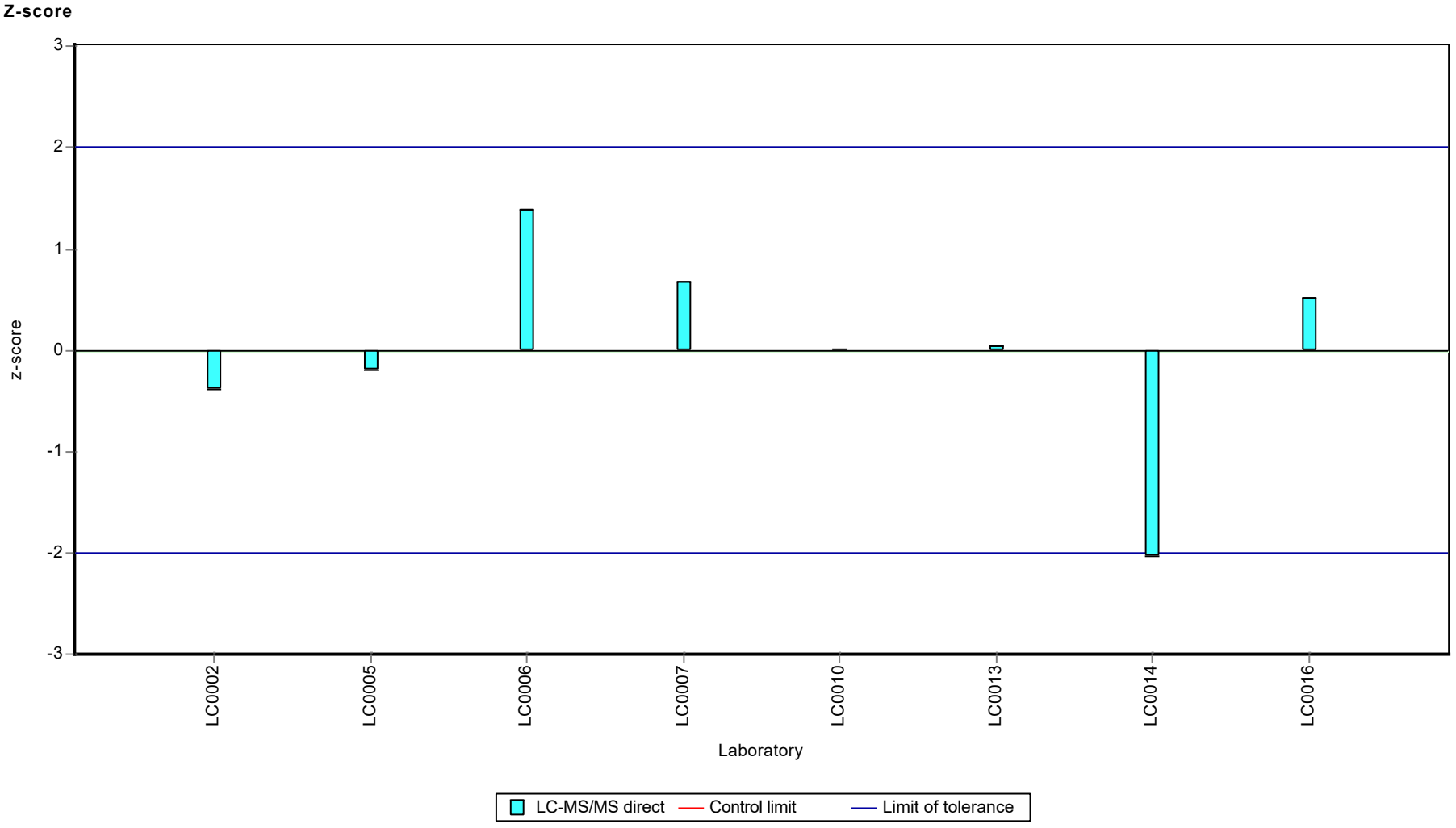
**Graphical presentation of results**

**Results**



**Recovery rate**




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0002
LC0005
LC0006
LC0007
LC0010
LC0013
LC0014
LC0016
Laboratory
LC-MS/MS direct
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 A

### 4-Formylaminoantipyrine

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.249 ± 0.0291 |
| Criterion | 0.0385 (15 %) |
| Minimum - Maximum | 0.194 - 0.318 |
| Control test value ± U (k=2) | 0.276 ± 0.0414 |

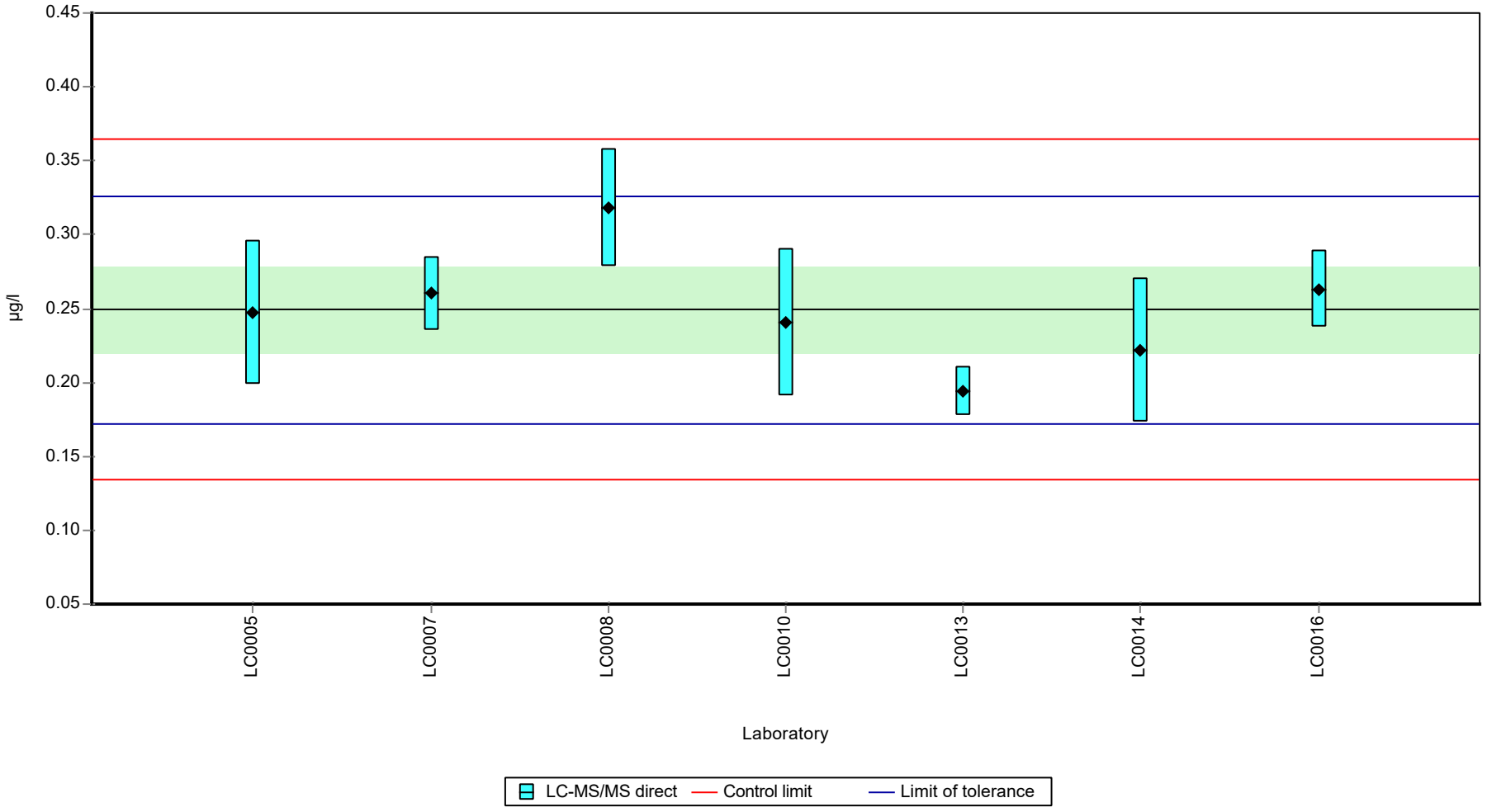
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | - | - | - | - | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.247 | 0.049 | 99.1 | -0.06 | |
| LC0006 | - | - | - | - | |
| LC0007 | 0.26 | 0.025 | 104 | 0.28 | |
| LC0008 | 0.318 | 0.04 | 128 | 1.78 | |
| LC0009 | - | - | - | - | |
| LC0010 | 0.2408 | 0.05 | 96.6 | -0.22 | |
| LC0011 | - | - | - | - | |
| LC0012 | - | - | - | - | |
| LC0013 | 0.194 | 0.017 | 77.8 | -1.43 | |
| LC0014 | 0.222 | 0.049 | 89.1 | -0.71 | |
| LC0015 | - | - | - | - | |
| LC0016 | 0.263 | 0.026 | 106 | 0.36 | |

**Characteristics of parameter**

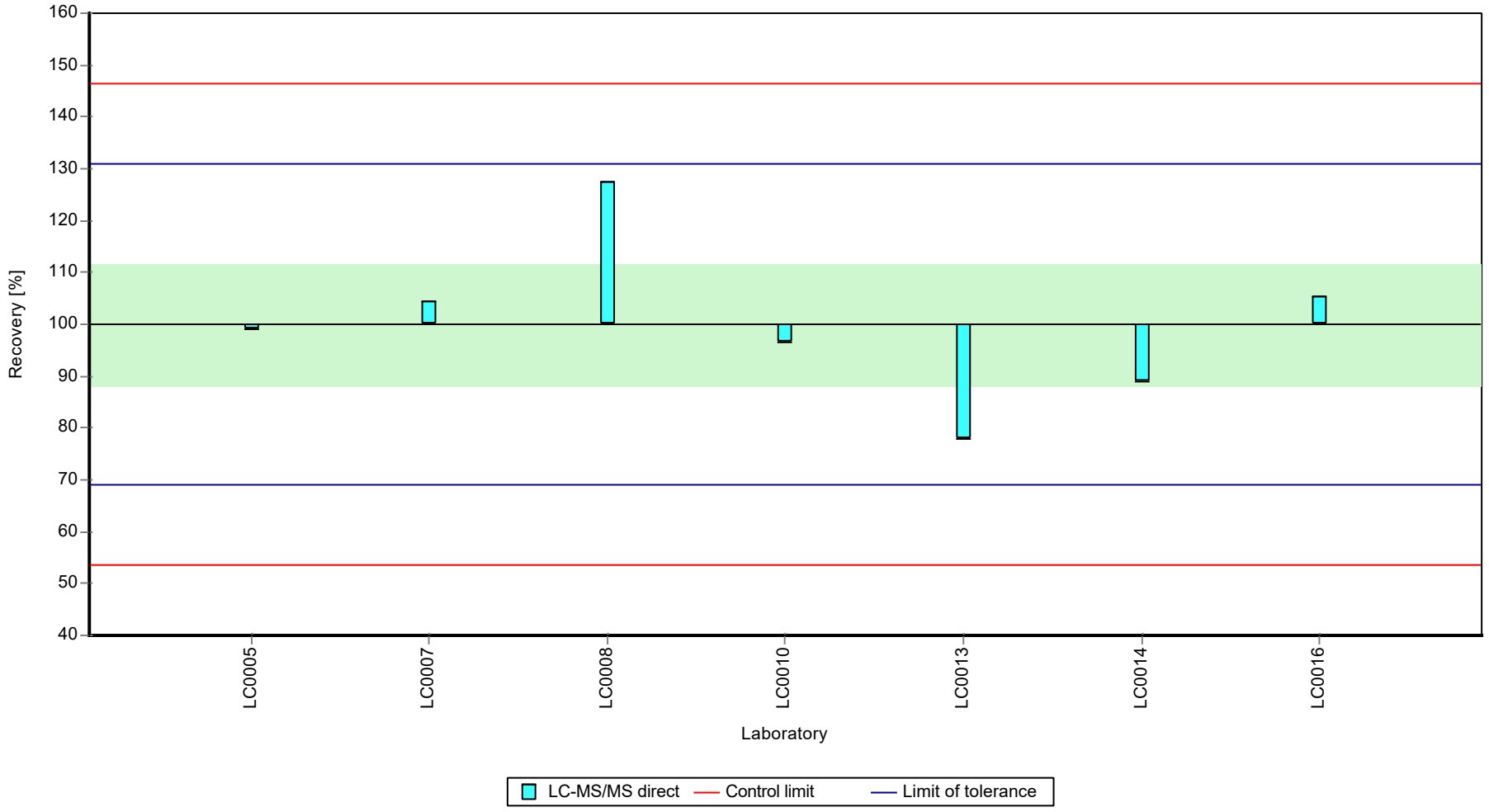
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.249 ± 0.0437 | 0.249 ± 0.0437 | µg/l |
| Minimum | 0.194 | 0.194 | µg/l |
| Maximum | 0.318 | 0.318 | µg/l |
| Standard deviation | 0.0385 | 0.0385 | µg/l |
| rel. standard deviation | 15.5 | 15.5 | % |
| n | 7 | 7 | - |

**Graphical presentation of results**

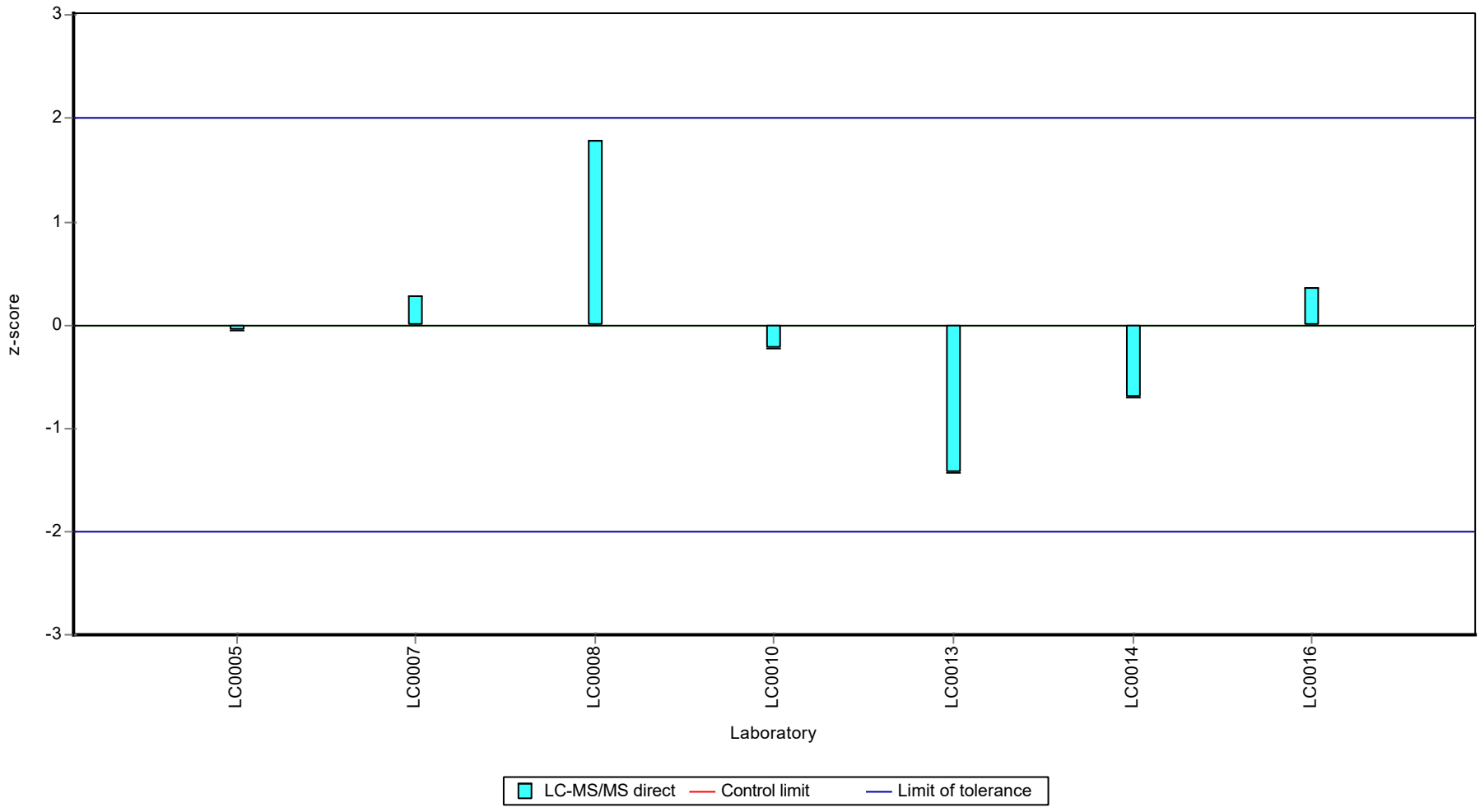
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0005
LC0007
LC0008
LC0010
LC0013
LC0014
LC0016
Laboratory
LC-MS/MS direct
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 B

## 4-Formylaminoantipyrine

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | - |
| Criterion | - |
| Minimum - Maximum | 3.3 - 3.8 |
| Control test value ± U (k=2) | 3.71 ± 0.557 |

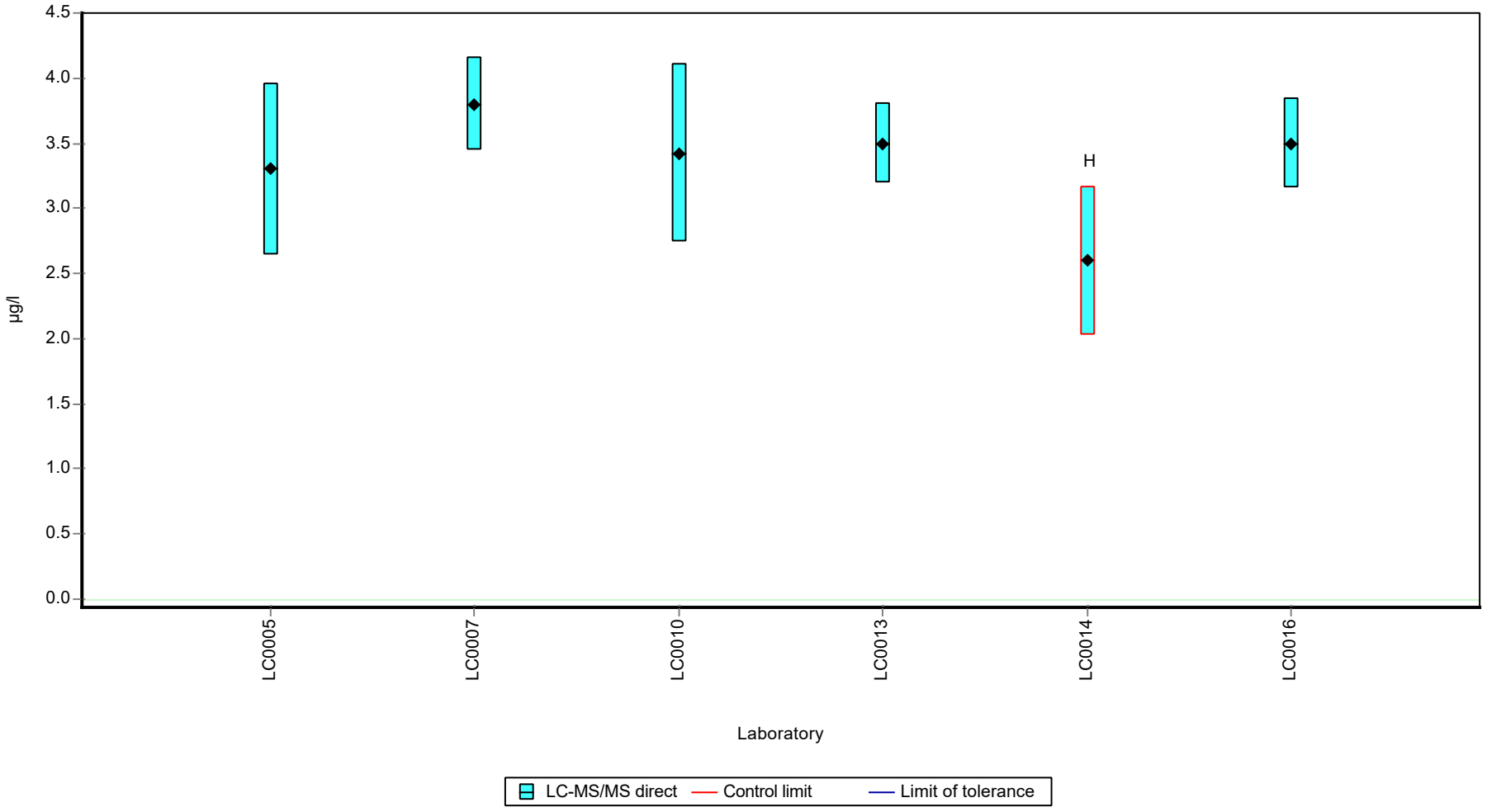
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | - | - | - | - | |
| LC0004 | - | - | - | - | |
| LC0005 | 3.3 | 0.66 | - | - | |
| LC0006 | - | - | - | - | |
| LC0007 | 3.8 | 0.36 | - | - | |
| LC0008 | - | - | - | - | |
| LC0009 | - | - | - | - | |
| LC0010 | 3.425 | 0.69 | - | - | |
| LC0011 | - | - | - | - | |
| LC0012 | - | - | - | - | |
| LC0013 | 3.5 | 0.31 | - | - | |
| LC0014 | 2.6 | 0.572 | - | - | H |
| LC0015 | - | - | - | - | |
| LC0016 | 3.5 | 0.35 | - | - | |

**Characteristics of parameter**

| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± CI (99%) | 3.35 ± 0.495 | - | µg/l |
| Minimum | 2.6 | 3.3 | µg/l |
| Maximum | 3.8 | 3.8 | µg/l |
| Standard deviation | 0.404 | - | µg/l |
| rel. standard deviation | 12.1 | - | % |
| n | 6 | 5 | - |

**Graphical presentation of results**

**Results**



# Parameter oriented report

## AZ7 A

### 10,11-Dihydro-10,11-Dihydroxycarbamazepine

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.0843 ± 0.0124 |
| Criterion | 0.0175 (21 %) |
| Minimum - Maximum | 0.059 - 0.111 |
| Control test value ± U (k=2) | 0.0962 ± 0.0144 |

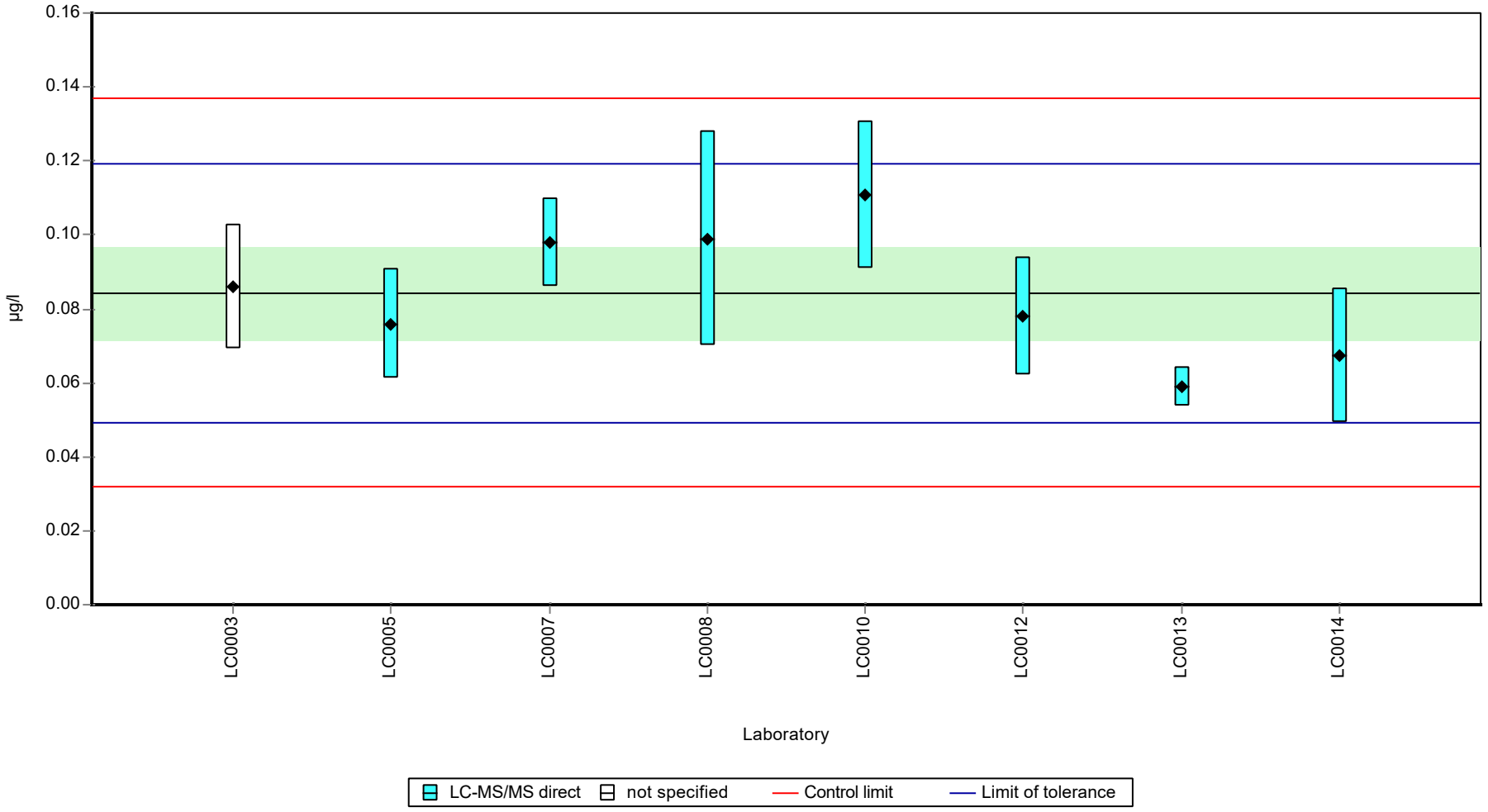
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | 0.086 | 0.017 | 102 | 0.1 | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.076 | 0.015 | 90.2 | -0.47 | |
| LC0006 | - | - | - | - | |
| LC0007 | 0.098 | 0.012 | 116 | 0.78 | |
| LC0008 | 0.099 | 0.029 | 117 | 0.84 | |
| LC0009 | - | - | - | - | |
| LC0010 | 0.1108 | 0.02 | 131 | 1.52 | |
| LC0011 | - | - | - | - | |
| LC0012 | 0.078 | 0.016 | 92.6 | -0.36 | |
| LC0013 | 0.059 | 0.0052 | 70 | -1.44 | |
| LC0014 | 0.0674 | 0.018 | 80 | -0.96 | |
| LC0015 | - | - | - | - | |
| LC0016 | - | - | - | - | |

**Characteristics of parameter**

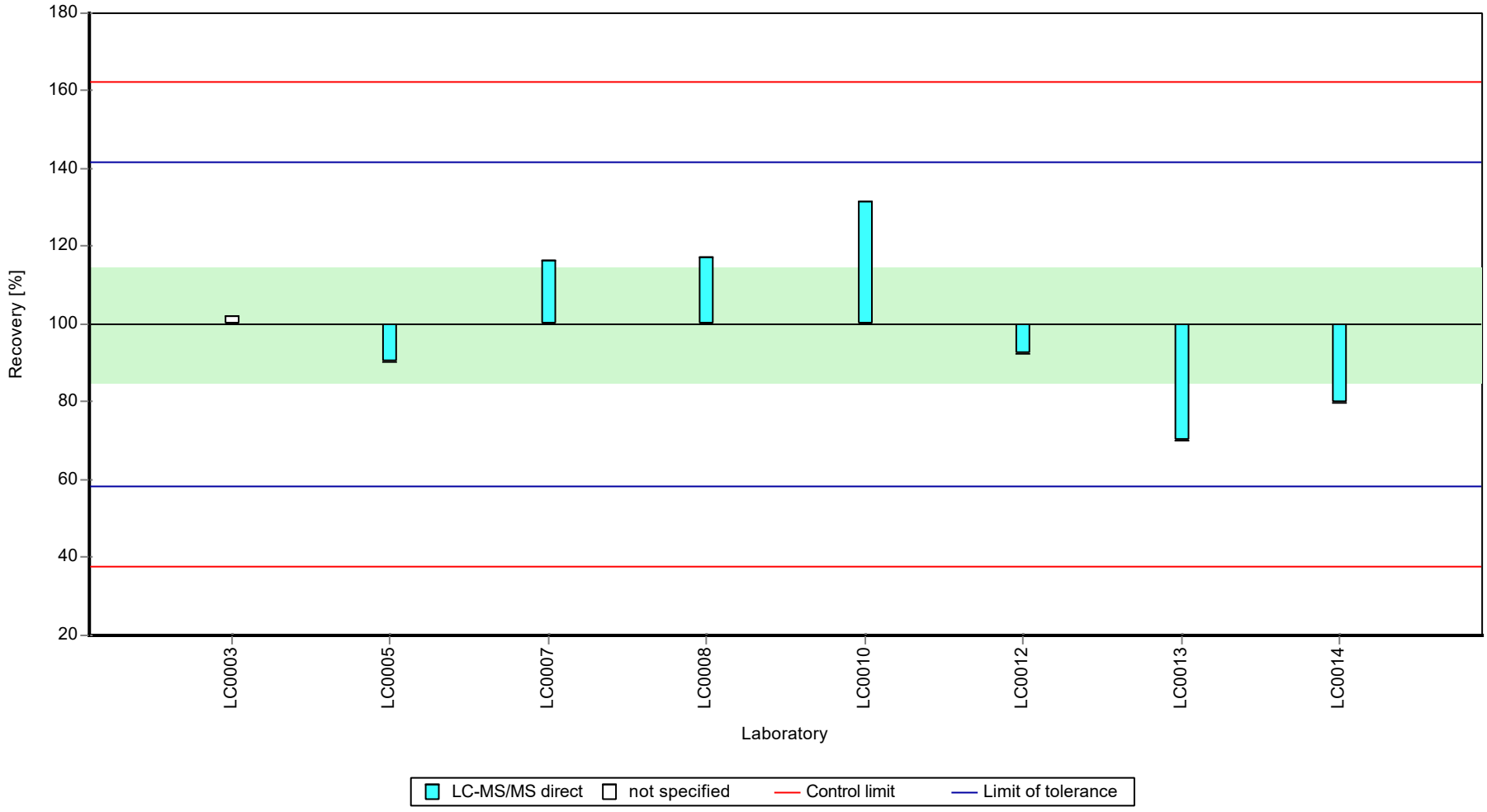
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.0843 ± 0.0186 | 0.0843 ± 0.0186 | µg/l |
| Minimum | 0.059 | 0.059 | µg/l |
| Maximum | 0.111 | 0.111 | µg/l |
| Standard deviation | 0.0175 | 0.0175 | µg/l |
| rel. standard deviation | 20.8 | 20.8 | % |
| n | 8 | 8 | - |

**Graphical presentation of results**

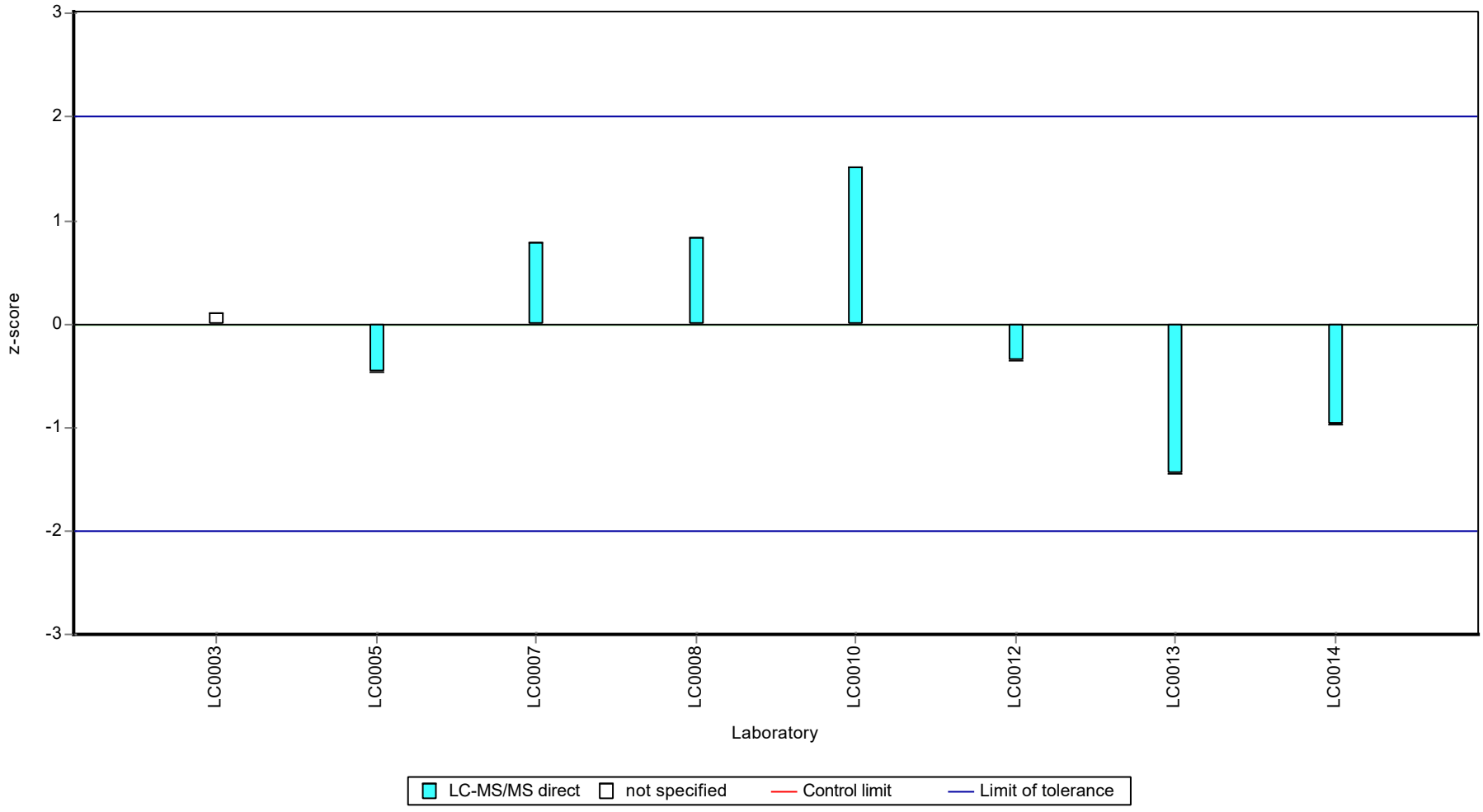
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0003
LC0005
LC0007
LC0008
LC0010
LC0012
LC0013
LC0014
Laboratory
LC-MS/MS direct
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 B

### 10,11-Dihydro-10,11-Dihydroxycarbamazepine

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 1.06 ± 0.194 |
| Criterion | 0.258 (24 %) |
| Minimum - Maximum | 0.826 - 1.58 |
| Control test value ± U (k=2) | 1.17 ± 0.176 |

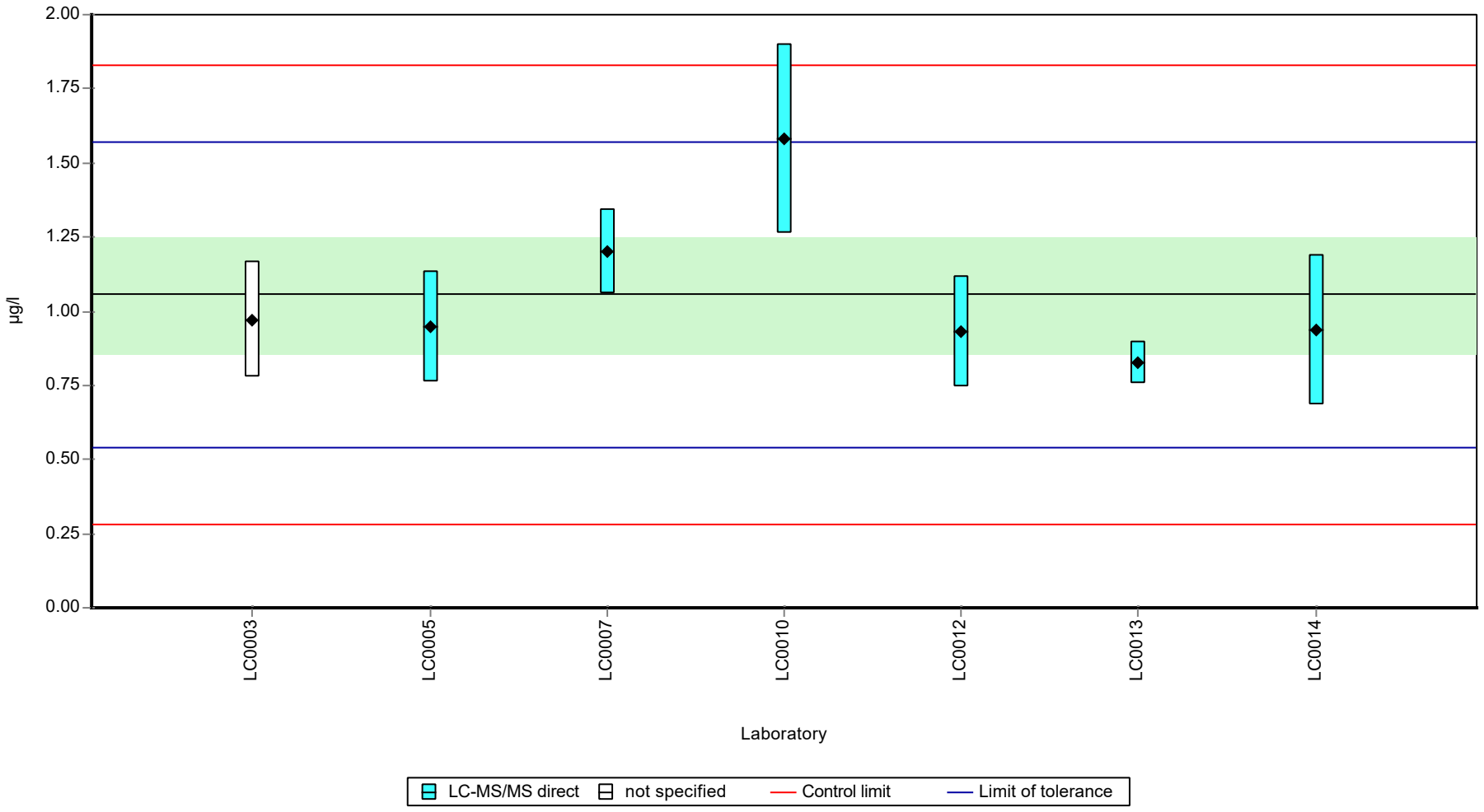
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | 0.972 | 0.194 | 92 | -0.33 | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.947 | 0.189 | 89.7 | -0.42 | |
| LC0006 | - | - | - | - | |
| LC0007 | 1.2 | 0.143 | 114 | 0.56 | |
| LC0008 | - | - | - | - | |
| LC0009 | - | - | - | - | |
| LC0010 | 1.58 | 0.32 | 150 | 2.03 | |
| LC0011 | - | - | - | - | |
| LC0012 | 0.932 | 0.186 | 88.3 | -0.48 | |
| LC0013 | 0.826 | 0.072 | 78.2 | -0.89 | |
| LC0014 | 0.935 | 0.253 | 88.5 | -0.47 | |
| LC0015 | - | - | - | - | |
| LC0016 | - | - | - | - | |

**Characteristics of parameter**

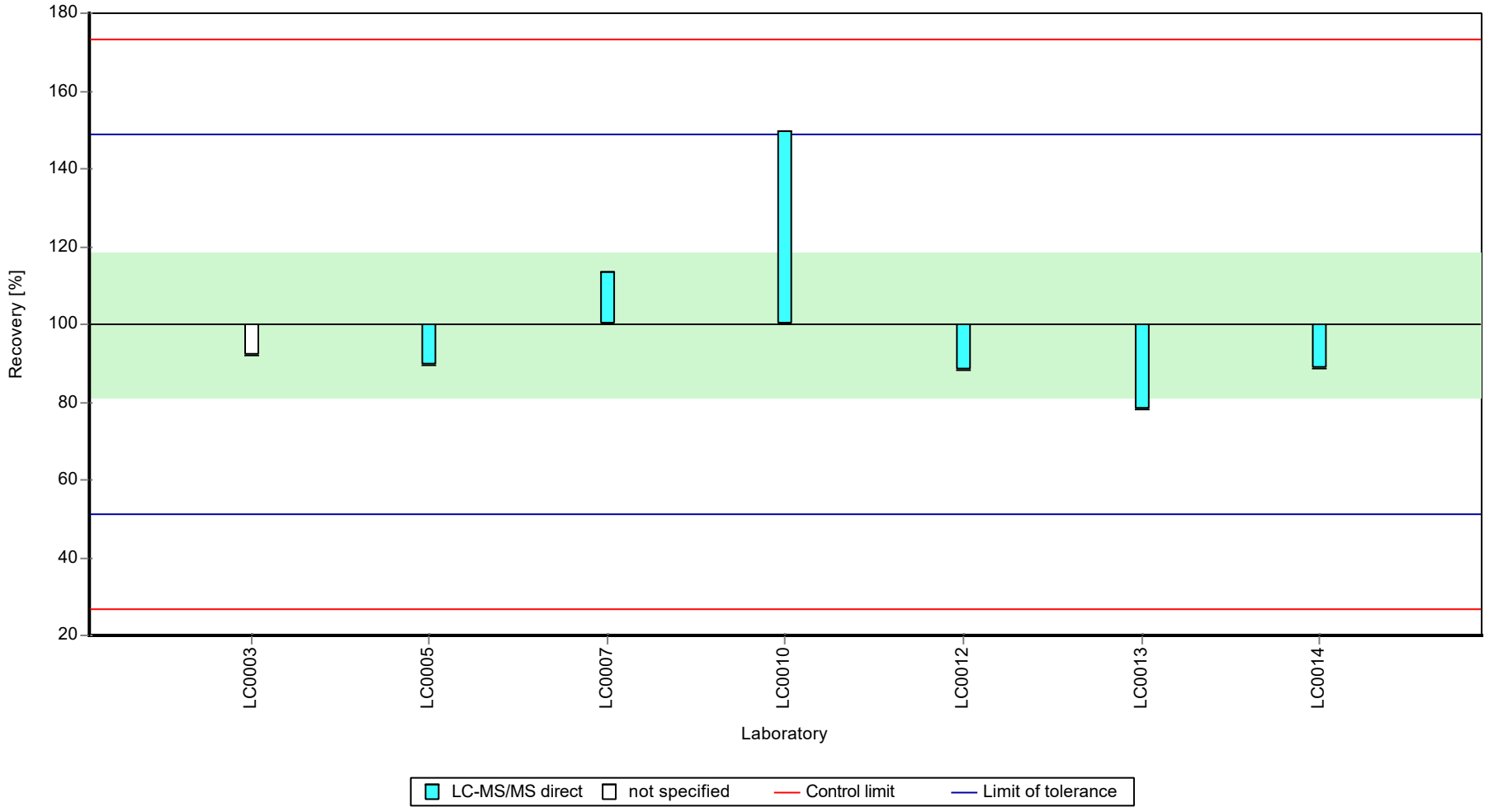
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 1.06 ± 0.292 | 1.06 ± 0.292 | µg/l |
| Minimum | 0.826 | 0.826 | µg/l |
| Maximum | 1.58 | 1.58 | µg/l |
| Standard deviation | 0.257 | 0.257 | µg/l |
| rel. standard deviation | 24.4 | 24.4 | % |
| n | 7 | 7 | - |

**Graphical presentation of results**

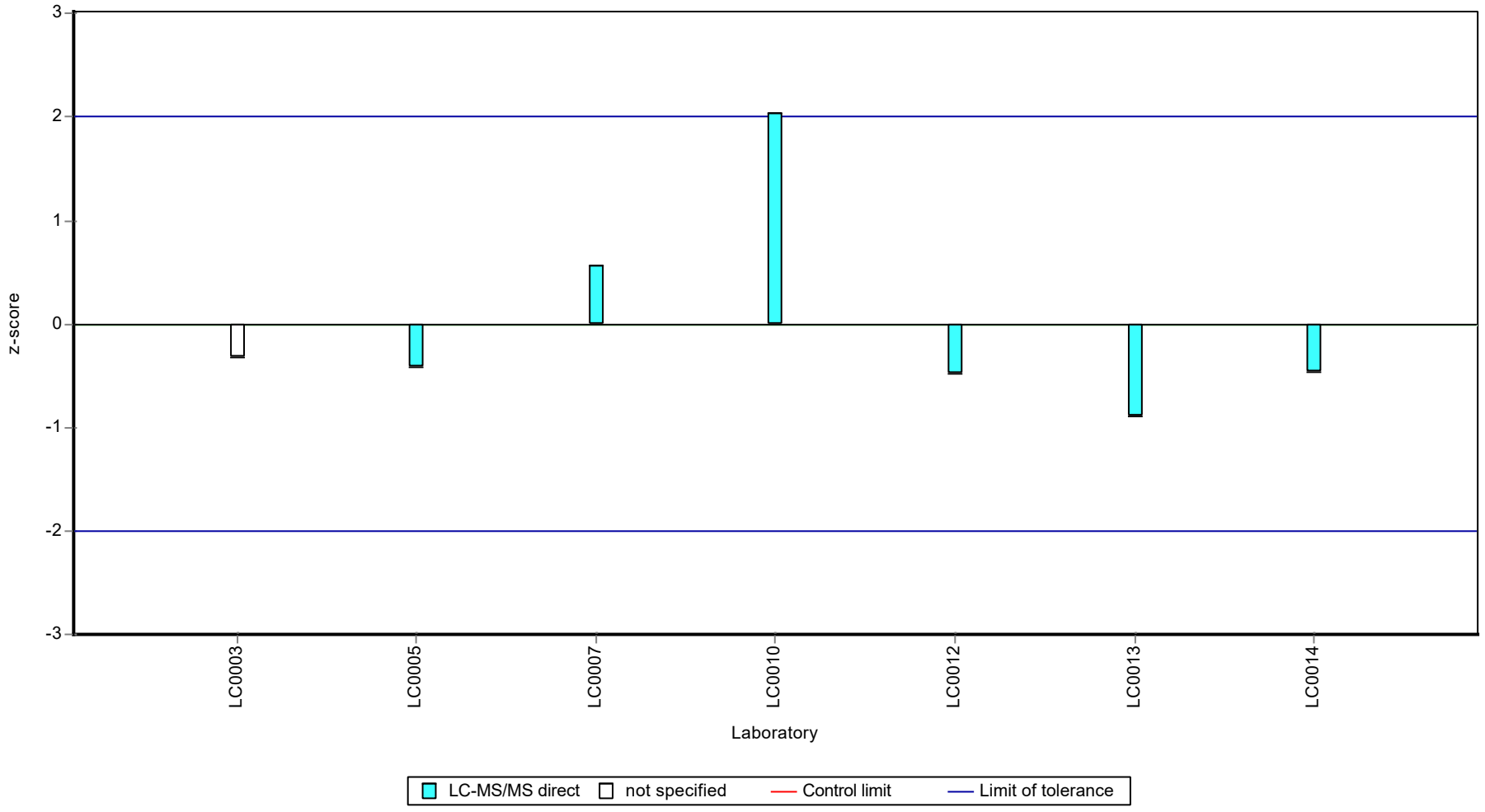
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0003
LC0005
LC0007
LC0010
LC0012
LC0013
LC0014
Laboratory
LC-MS/MS direct
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 A

## Acesulfame

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.0657 ± 0.00386 |
| Criterion | 0.0112 (17 %) |
| Minimum - Maximum | 0.051 - 0.074 |
| Control test value ± U (k=2) | 0.0909 ± 0.0136 |

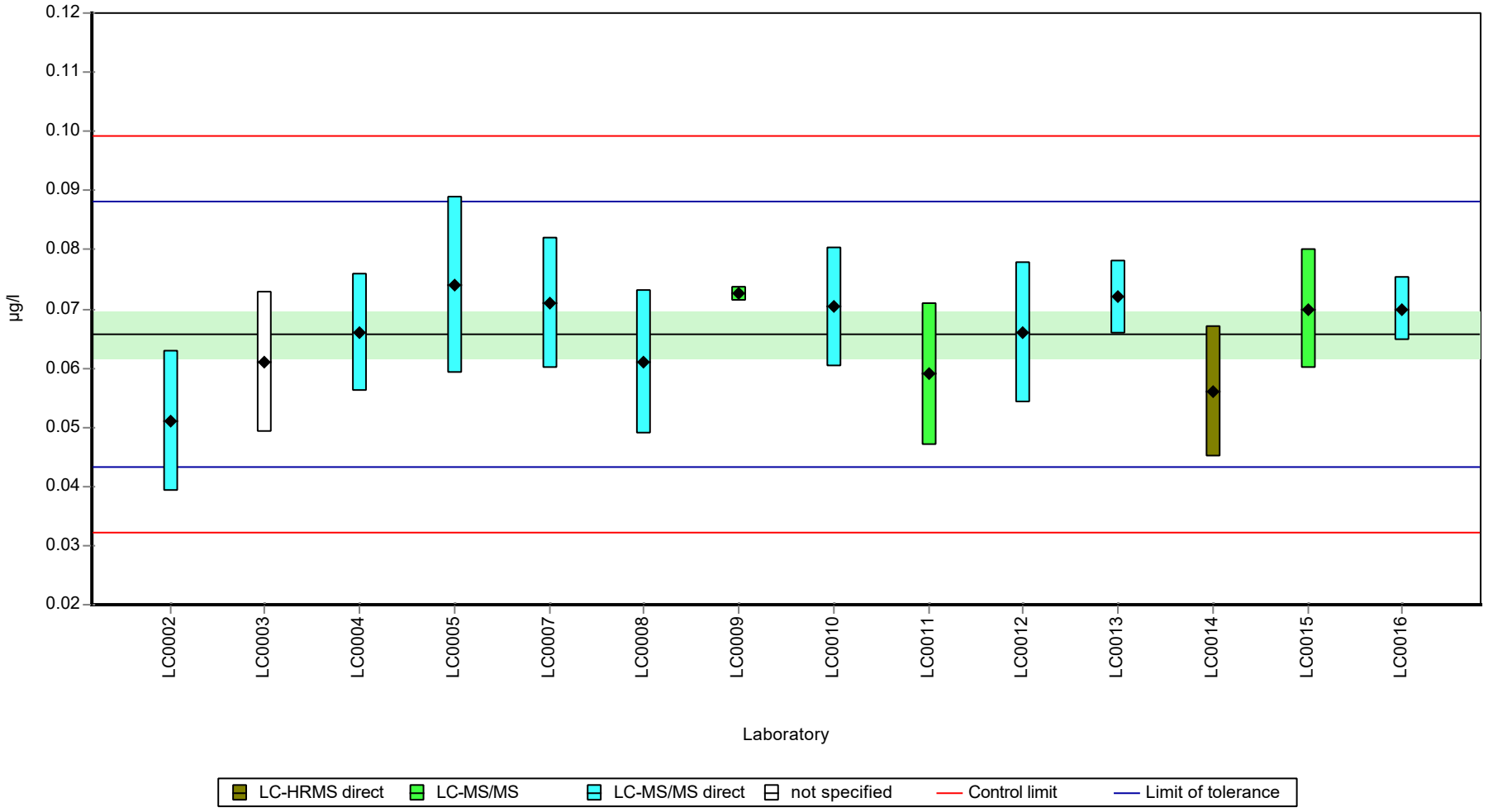
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | 0.051 | 0.012 | 77.6 | -1.32 | |
| LC0003 | 0.061 | 0.012 | 92.8 | -0.42 | |
| LC0004 | 0.066 | 0.01 | 100 | 0.03 | |
| LC0005 | 0.074 | 0.015 | 113 | 0.74 | |
| LC0006 | - | - | - | - | |
| LC0007 | 0.071 | 0.011 | 108 | 0.47 | |
| LC0008 | 0.061 | 0.0122 | 92.8 | -0.42 | |
| LC0009 | 0.0725 | 0.0013 | 110 | 0.61 | |
| LC0010 | 0.0703 | 0.01 | 107 | 0.41 | |
| LC0011 | 0.059 | 0.012 | 89.8 | -0.6 | |
| LC0012 | 0.066 | 0.012 | 100 | 0.03 | |
| LC0013 | 0.072 | 0.0063 | 110 | 0.56 | |
| LC0014 | 0.056 | 0.011 | 85.2 | -0.87 | |
| LC0015 | 0.07 | 0.01 | 107 | 0.39 | |
| LC0016 | 0.07 | 0.0053 | 107 | 0.39 | |

**Characteristics of parameter**

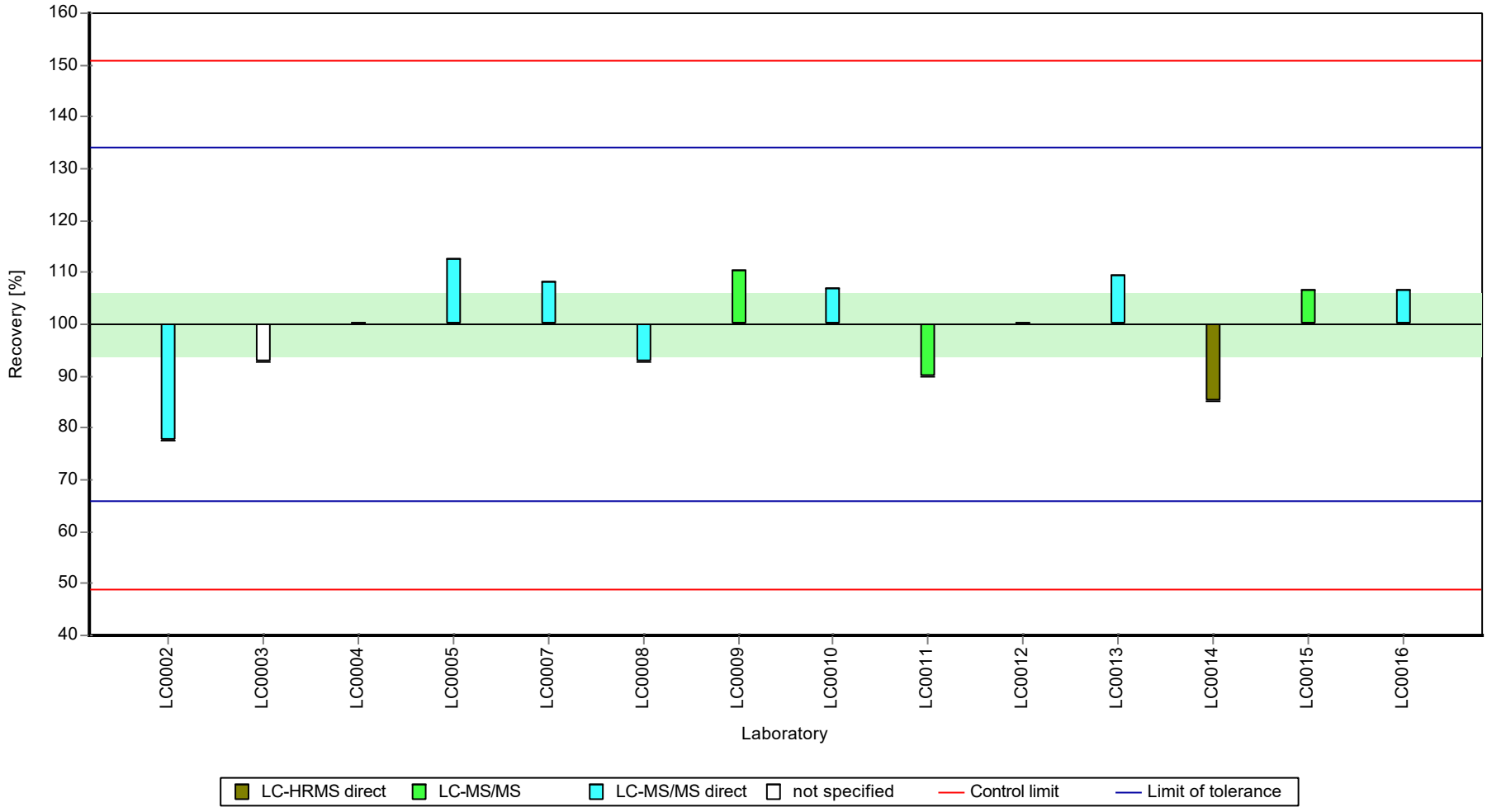
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± CI (99%) | 0.0657 ± 0.00563 | 0.0657 ± 0.00563 | µg/l |
| Minimum | 0.051 | 0.051 | µg/l |
| Maximum | 0.074 | 0.074 | µg/l |
| Standard deviation | 0.00702 | 0.00702 | µg/l |
| rel. standard deviation | 10.7 | 10.7 | % |
| n | 14 | 14 | - |

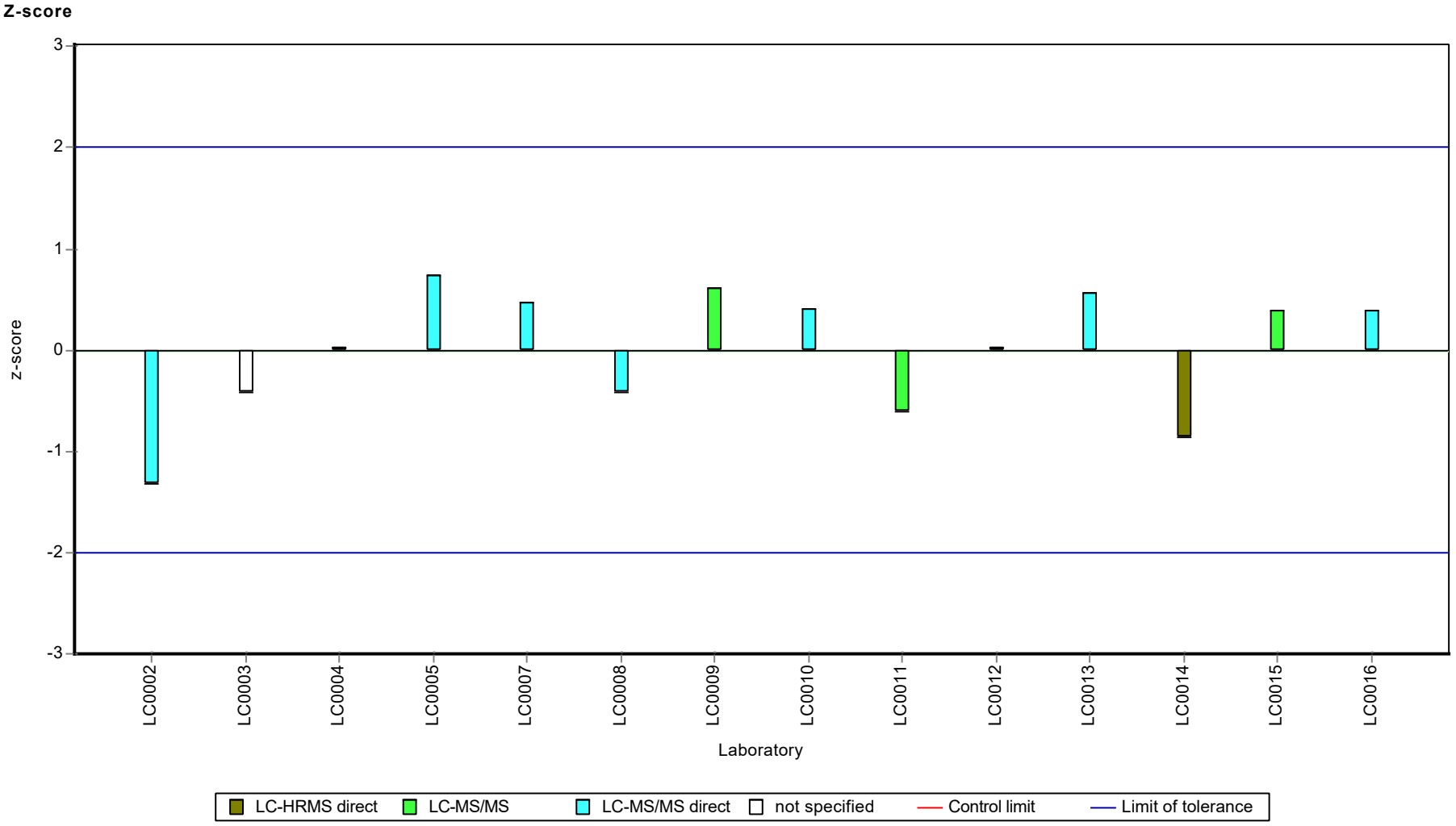
**Graphical presentation of results**

**Results**



**Recovery rate**




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0002
LC0003
LC0004
LC0005
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
Laboratory
LC-HRMS direct
LC-MS/MS
LC-MS/MS direct
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 B

## Acesulfame

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 1.97 ± 0.102 |
| Criterion | 0.336 (17 %) |
| Minimum - Maximum | 1.71 - 2.35 |
| Control test value ± U (k=2) | - |

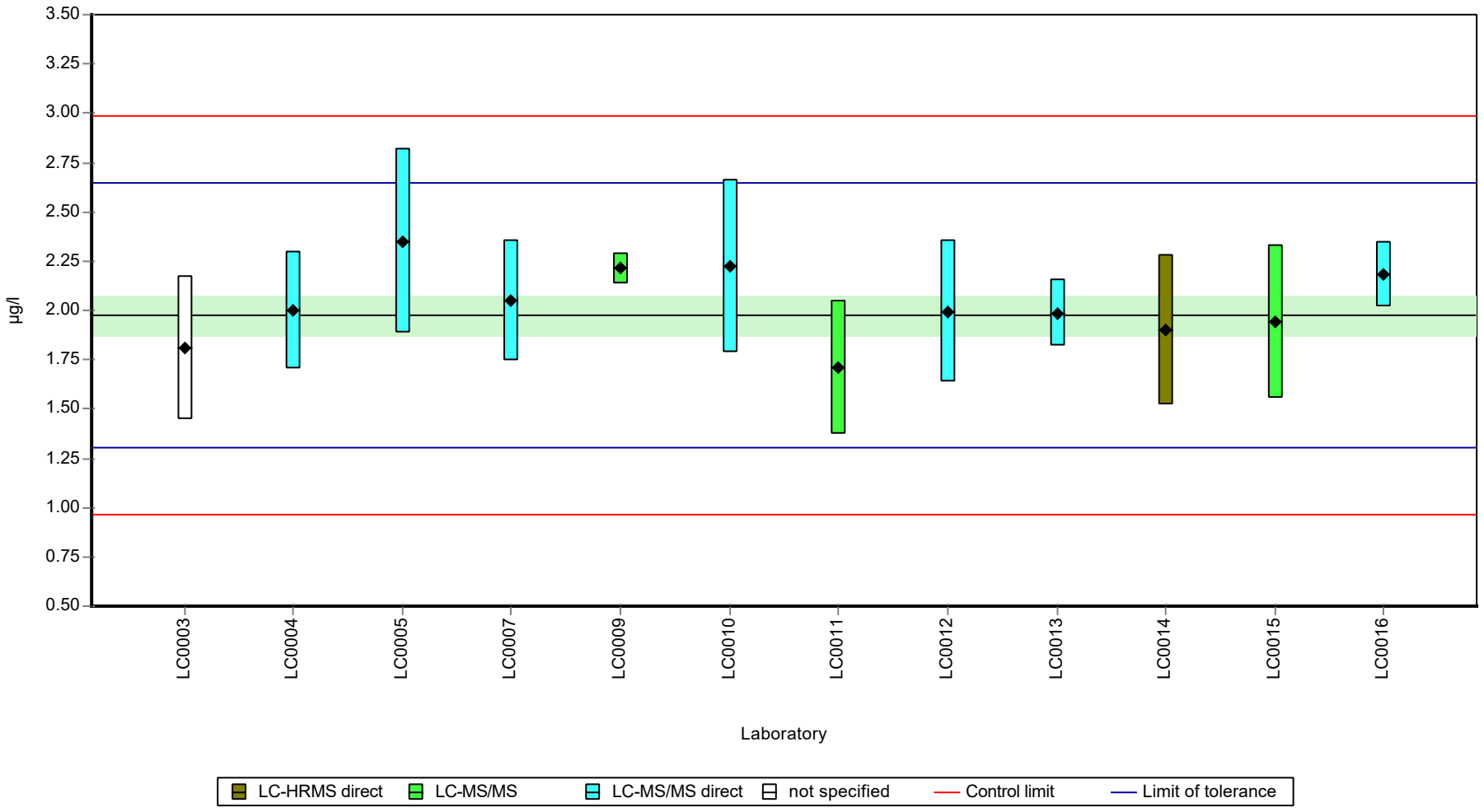
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | 1.81 | 0.362 | 91.7 | -0.49 | |
| LC0004 | 2 | 0.3 | 101 | 0.07 | |
| LC0005 | 2.35 | 0.47 | 119 | 1.12 | |
| LC0006 | - | - | - | - | |
| LC0007 | 2.05 | 0.308 | 104 | 0.22 | |
| LC0008 | - | - | - | - | |
| LC0009 | 2.213 | 0.079 | 112 | 0.71 | |
| LC0010 | 2.2212 | 0.44 | 112 | 0.73 | |
| LC0011 | 1.71 | 0.342 | 86.6 | -0.79 | |
| LC0012 | 1.994 | 0.359 | 101 | 0.06 | |
| LC0013 | 1.984 | 0.17 | 100 | 0.03 | |
| LC0014 | 1.9 | 0.38 | 96.2 | -0.22 | |
| LC0015 | 1.94 | 0.39 | 98.2 | -0.1 | |
| LC0016 | 2.18 | 0.164 | 110 | 0.61 | |

**Characteristics of parameter**

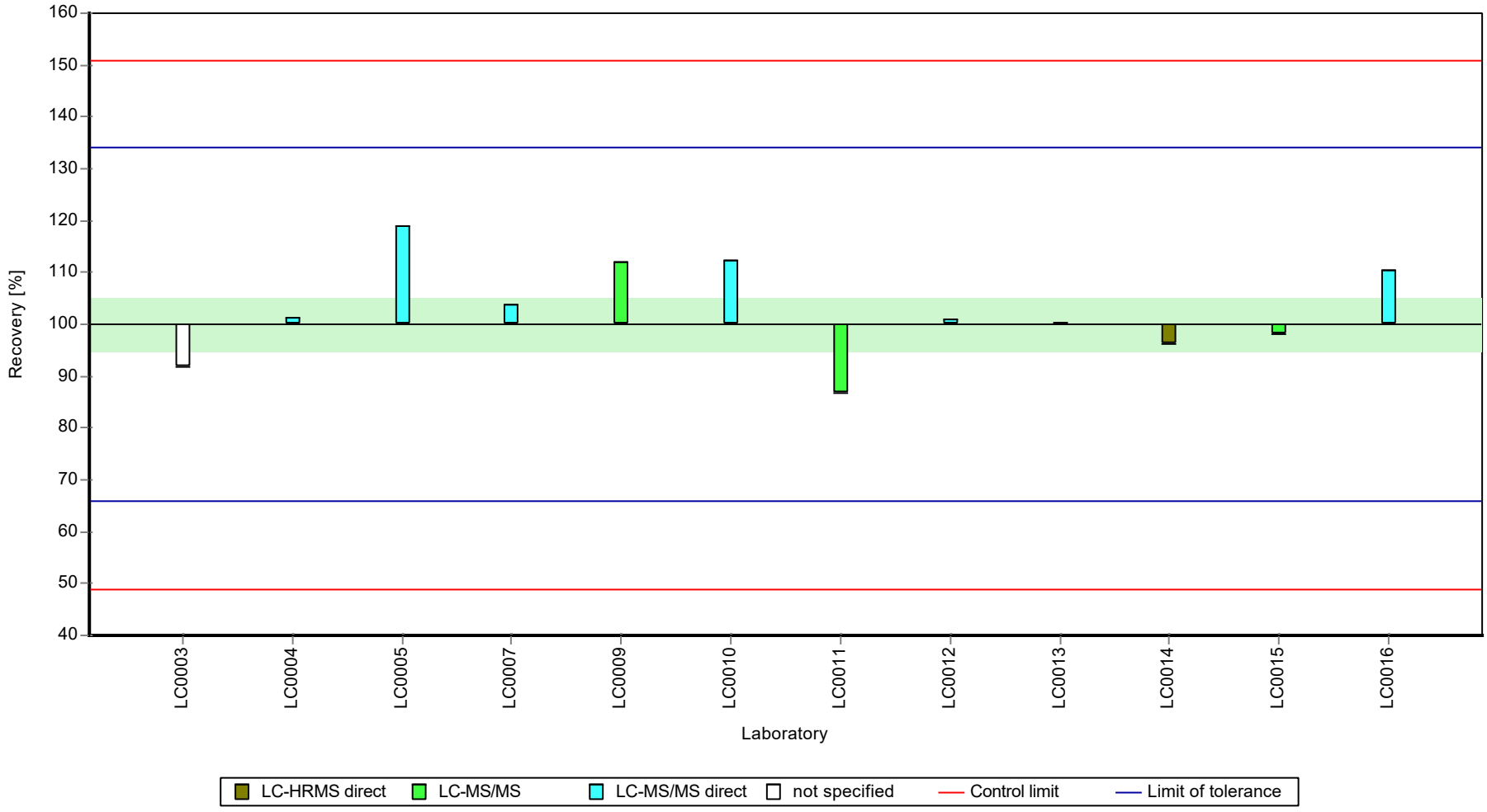
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± CI (99%) | 2.03 ± 0.16 | 2.03 ± 0.16 | µg/l |
| Minimum | 1.71 | 1.71 | µg/l |
| Maximum | 2.35 | 2.35 | µg/l |
| Standard deviation | 0.185 | 0.185 | µg/l |
| rel. standard deviation | 9.1 | 9.1 | % |
| n | 12 | 12 | - |

**Graphical presentation of results**

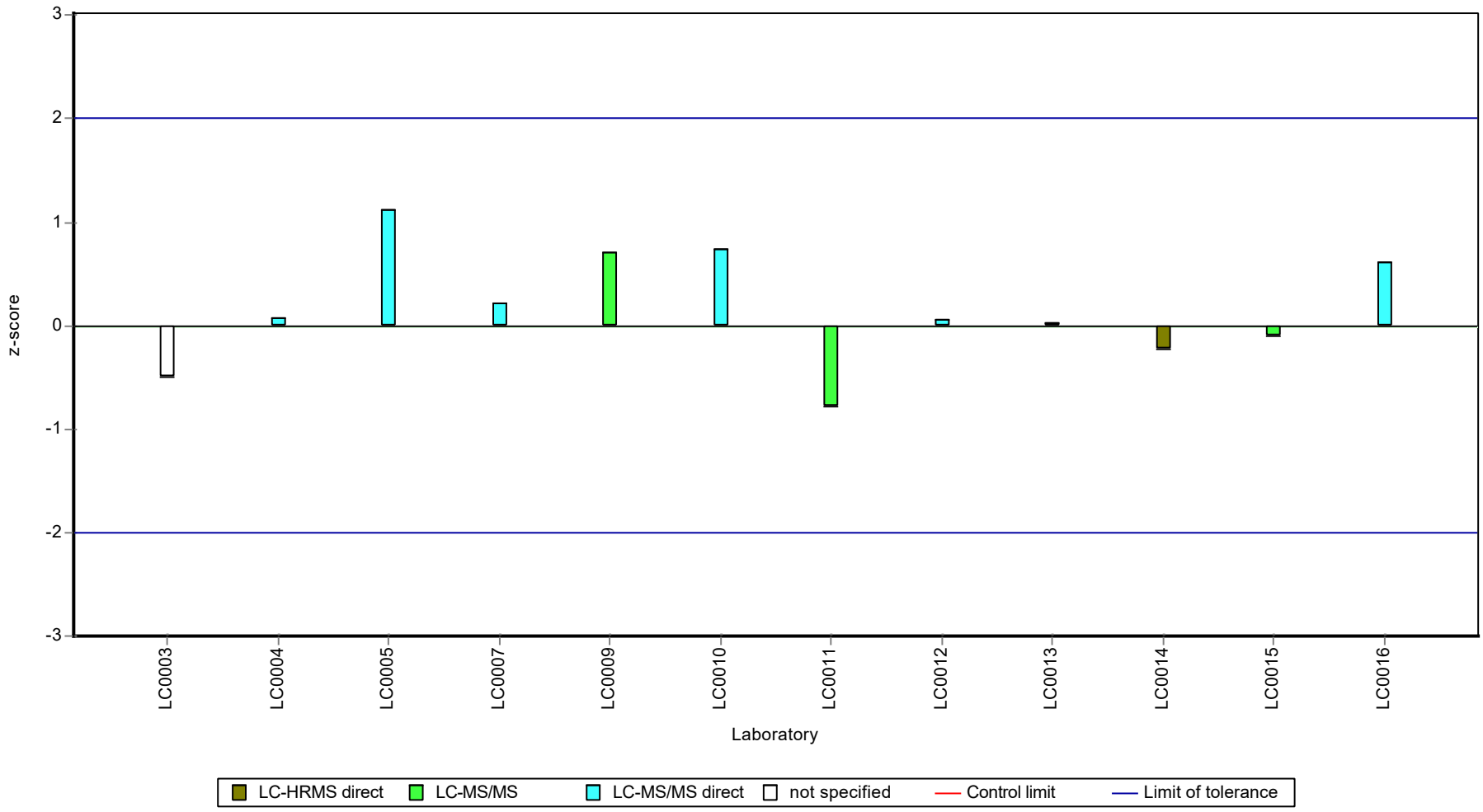
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0003
LC0004
LC0005
LC0007
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
Laboratory
LC-HRMS direct
LC-MS/MS
LC-MS/MS direct
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 A

## Amidotrizoic acid

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.464 ± 0.0635 |
| Criterion | 0.0876 (19 %) |
| Minimum - Maximum | 0.301 - 0.644 |
| Control test value ± U (k=2) | 0.613 ± 0.123 |

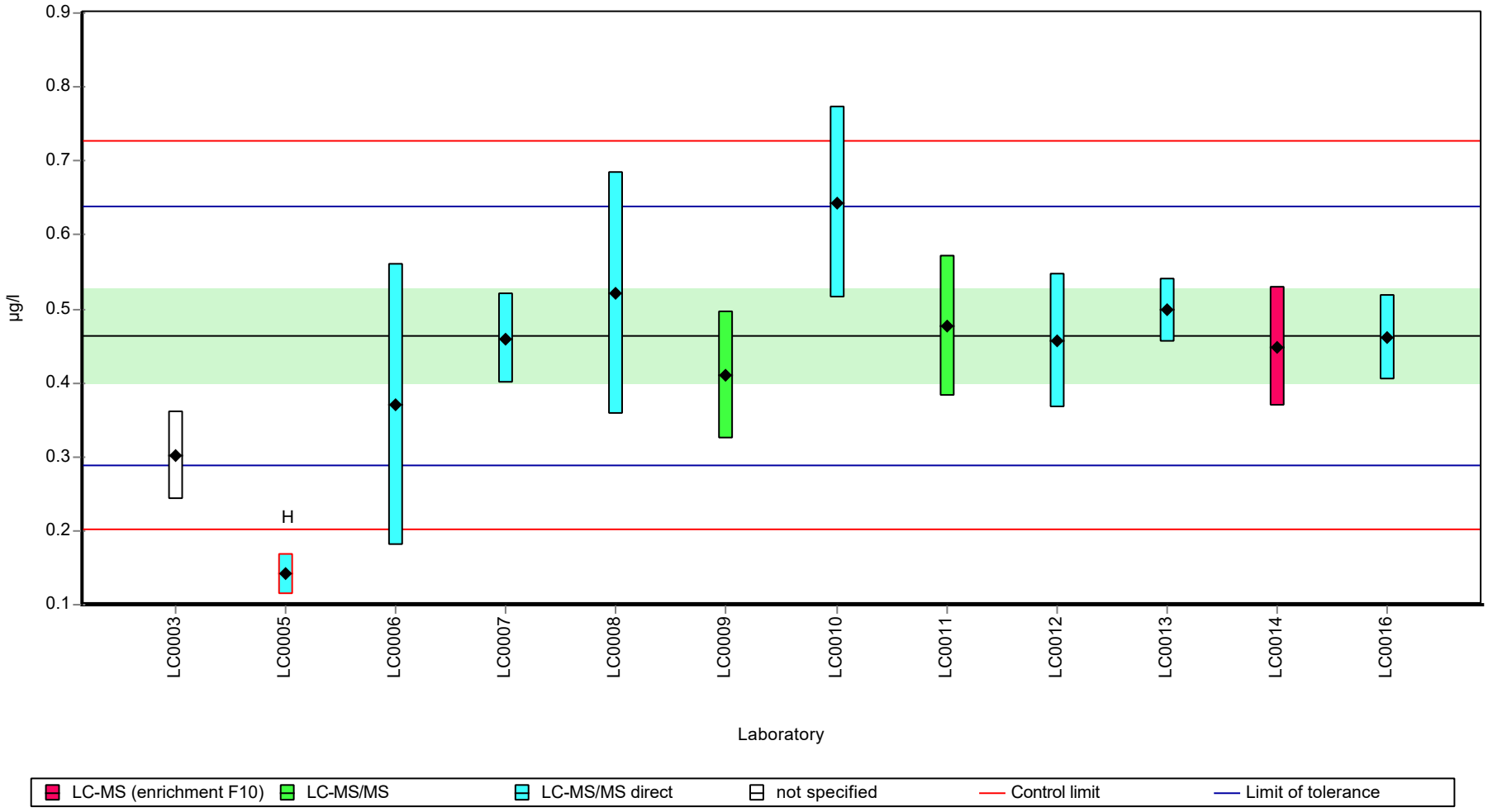
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | 0.301 | 0.06 | 64.9 | -1.86 | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.141 | 0.028 | 30.4 | -3.69 | H |
| LC0006 | 0.37 | 0.19 | 79.8 | -1.07 | |
| LC0007 | 0.46 | 0.06 | 99.2 | -0.04 | |
| LC0008 | 0.521 | 0.163 | 112 | 0.65 | |
| LC0009 | 0.4106 | 0.086 | 88.5 | -0.61 | |
| LC0010 | 0.6435 | 0.13 | 139 | 2.05 | |
| LC0011 | 0.476 | 0.095 | 103 | 0.14 | |
| LC0012 | 0.456 | 0.091 | 98.3 | -0.09 | |
| LC0013 | 0.498 | 0.044 | 107 | 0.39 | |
| LC0014 | 0.449 | 0.081 | 96.8 | -0.17 | |
| LC0015 | - | - | - | - | |
| LC0016 | 0.461 | 0.058 | 99.4 | -0.03 | |

**Characteristics of parameter**

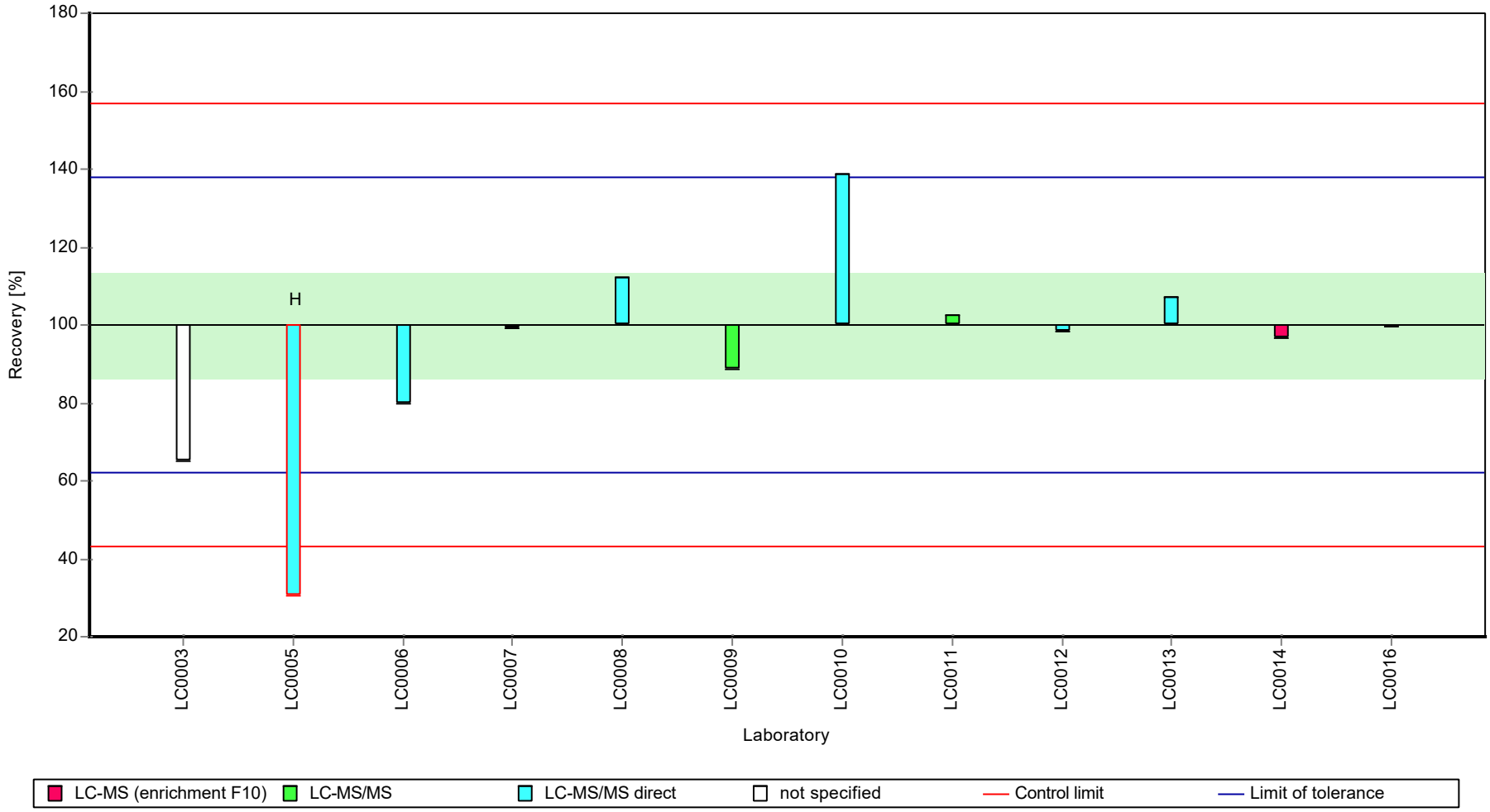
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.432 ± 0.107 | 0.459 ± 0.0784 | µg/l |
| Minimum | 0.141 | 0.301 | µg/l |
| Maximum | 0.644 | 0.644 | µg/l |
| Standard deviation | 0.123 | 0.0866 | µg/l |
| rel. standard deviation | 28.6 | 18.9 | % |
| n | 12 | 11 | - |

**Graphical presentation of results**

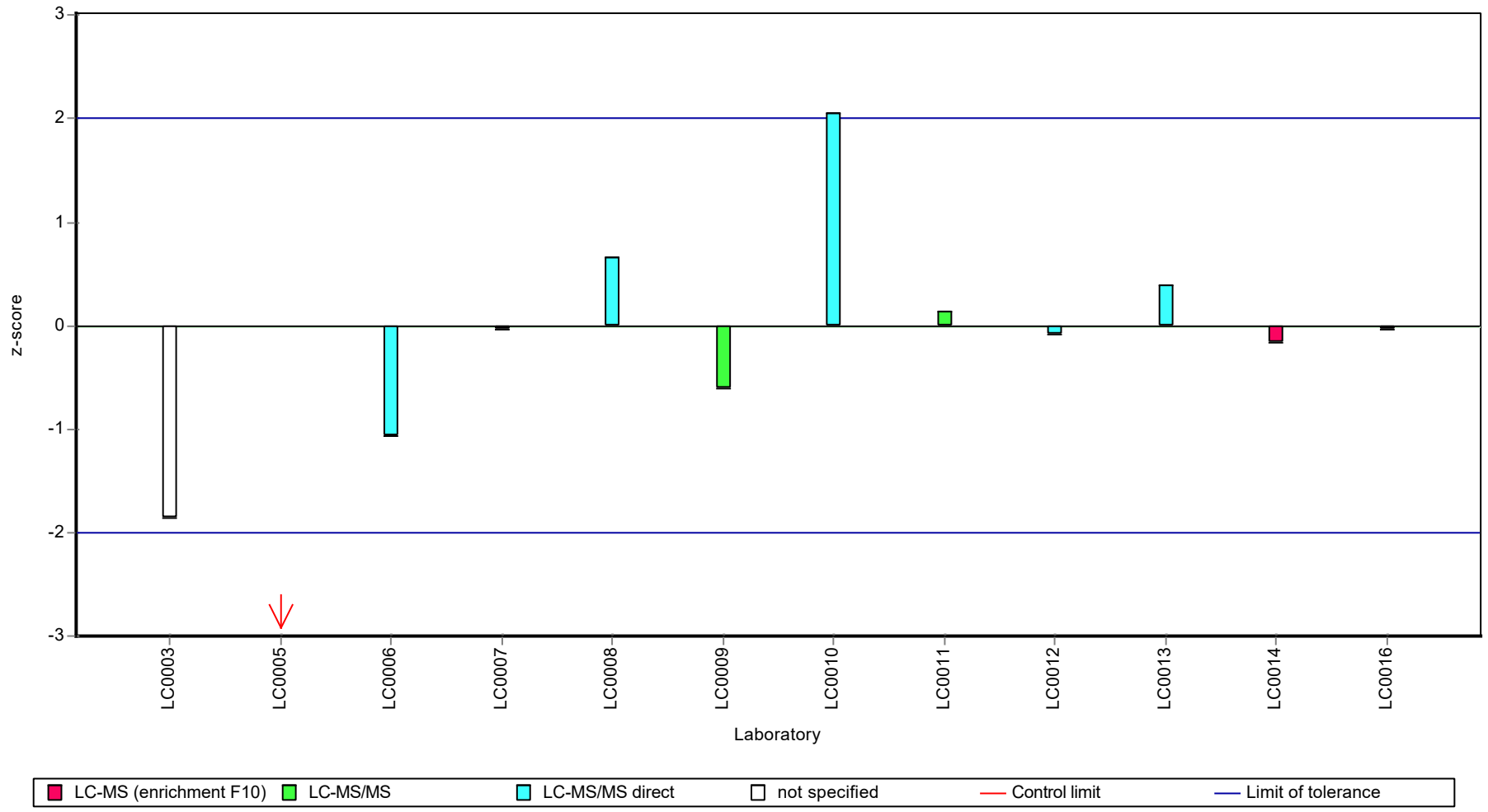
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0003
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0016
Laboratory
LC-MS (enrichment F10)
LC-MS/MS
LC-MS/MS direct
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 B

## Amidotrizoic acid

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 1.09 ± 0.223 |
| Criterion | 0.378 (35 %) |
| Minimum - Maximum | 0.319 - 1.56 |
| Control test value ± U (k=2) | 1.39 ± 0.277 |

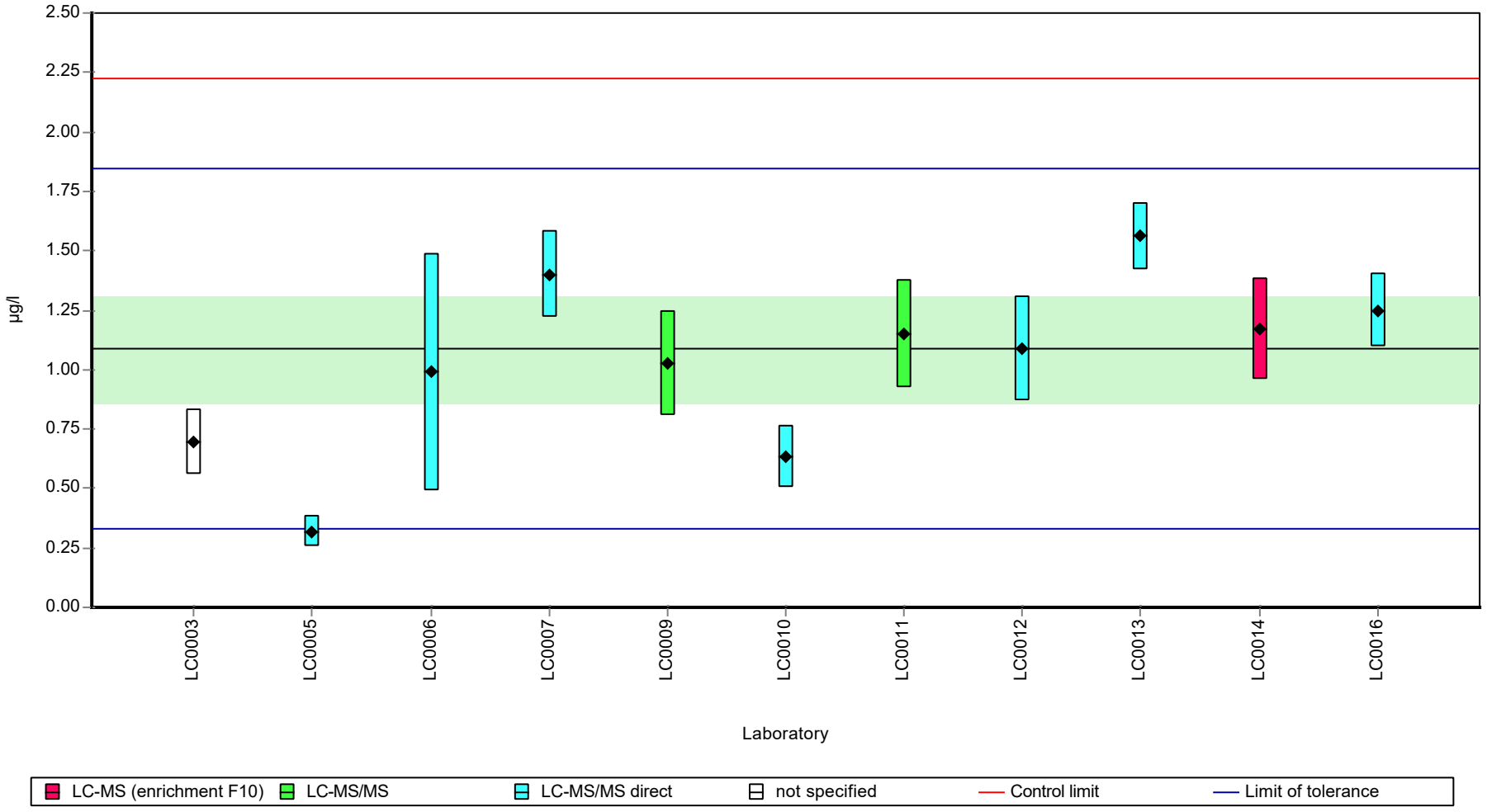
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | 0.696 | 0.139 | 64.1 | -1.03 | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.319 | 0.064 | 29.4 | -2.03 | |
| LC0006 | 0.99 | 0.5 | 91.1 | -0.25 | |
| LC0007 | 1.4 | 0.182 | 129 | 0.83 | |
| LC0008 | - | - | - | - | |
| LC0009 | 1.0288 | 0.22 | 94.7 | -0.15 | |
| LC0010 | 0.635 | 0.13 | 58.5 | -1.19 | |
| LC0011 | 1.15 | 0.229 | 106 | 0.17 | |
| LC0012 | 1.088 | 0.218 | 100 | 0.00 | |
| LC0013 | 1.56 | 0.14 | 144 | 1.25 | |
| LC0014 | 1.17 | 0.211 | 108 | 0.22 | |
| LC0015 | - | - | - | - | |
| LC0016 | 1.25 | 0.156 | 115 | 0.43 | |

**Characteristics of parameter**

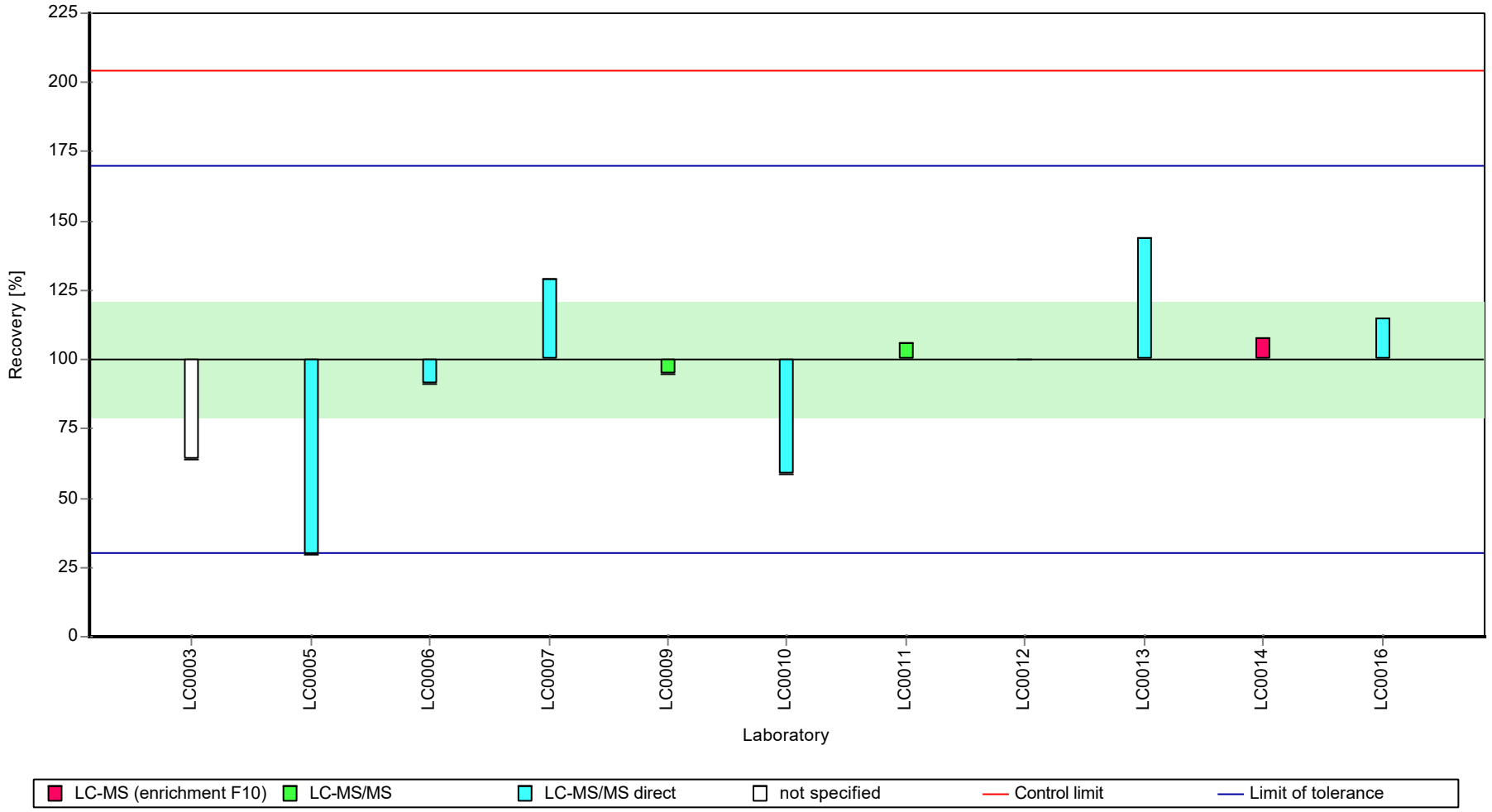
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 1.03 ± 0.323 | 1.03 ± 0.323 | µg/l |
| Minimum | 0.319 | 0.319 | µg/l |
| Maximum | 1.56 | 1.56 | µg/l |
| Standard deviation | 0.357 | 0.358 | µg/l |
| rel. standard deviation | 34.8 | 34.8 | % |
| n | 11 | 11 | - |

**Graphical presentation of results**

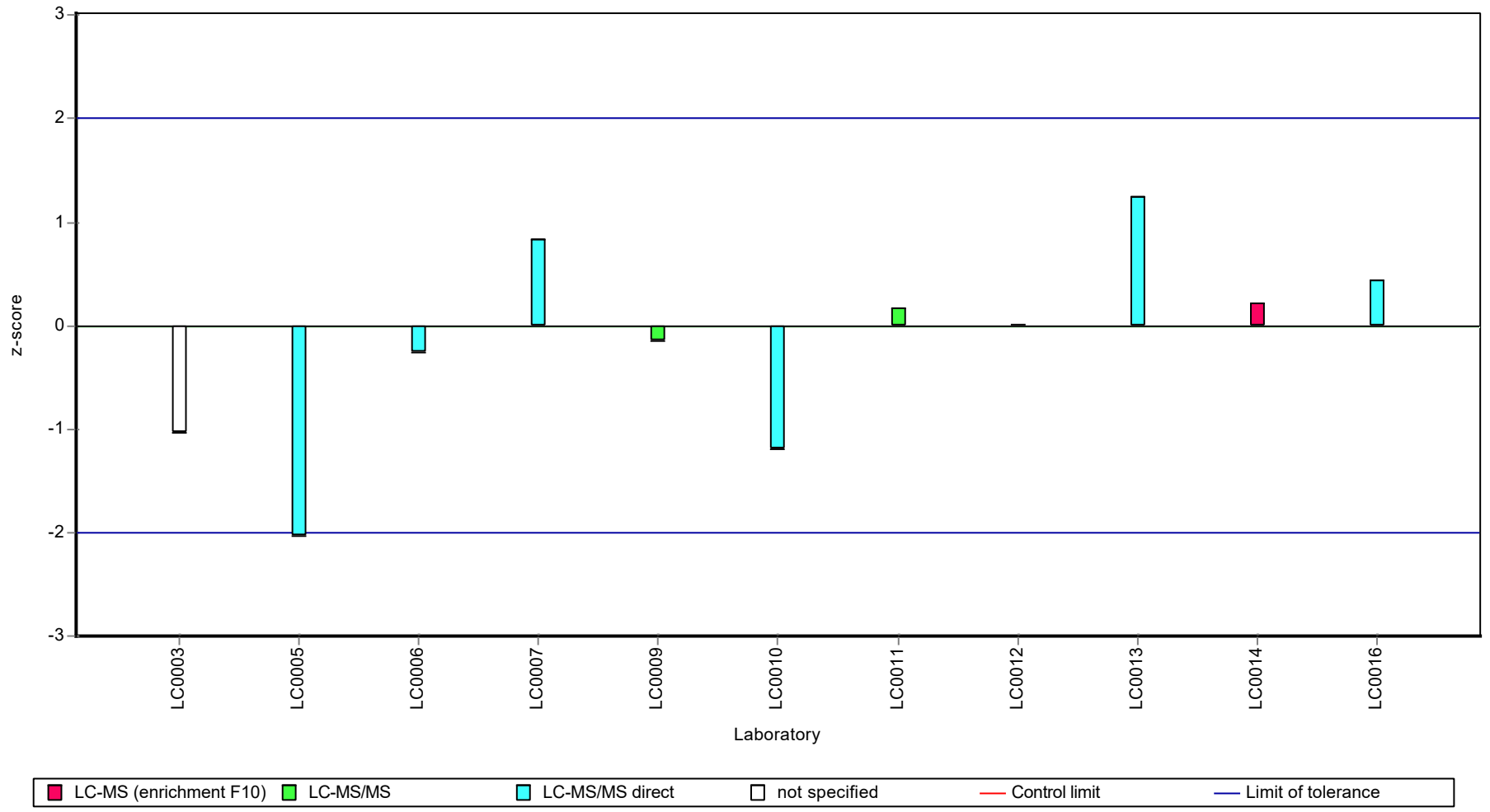
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0003
LC0005
LC0006
LC0007
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0016
Laboratory
LC-MS (enrichment F10)
LC-MS/MS
LC-MS/MS direct
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 A

## Atenolol

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.316 ± 0.0247 |
| Criterion | 0.0349 (11 %) |
| Minimum - Maximum | 0.27 - 0.366 |
| Control test value ± U (k=2) | 0.349 ± 0.0523 |

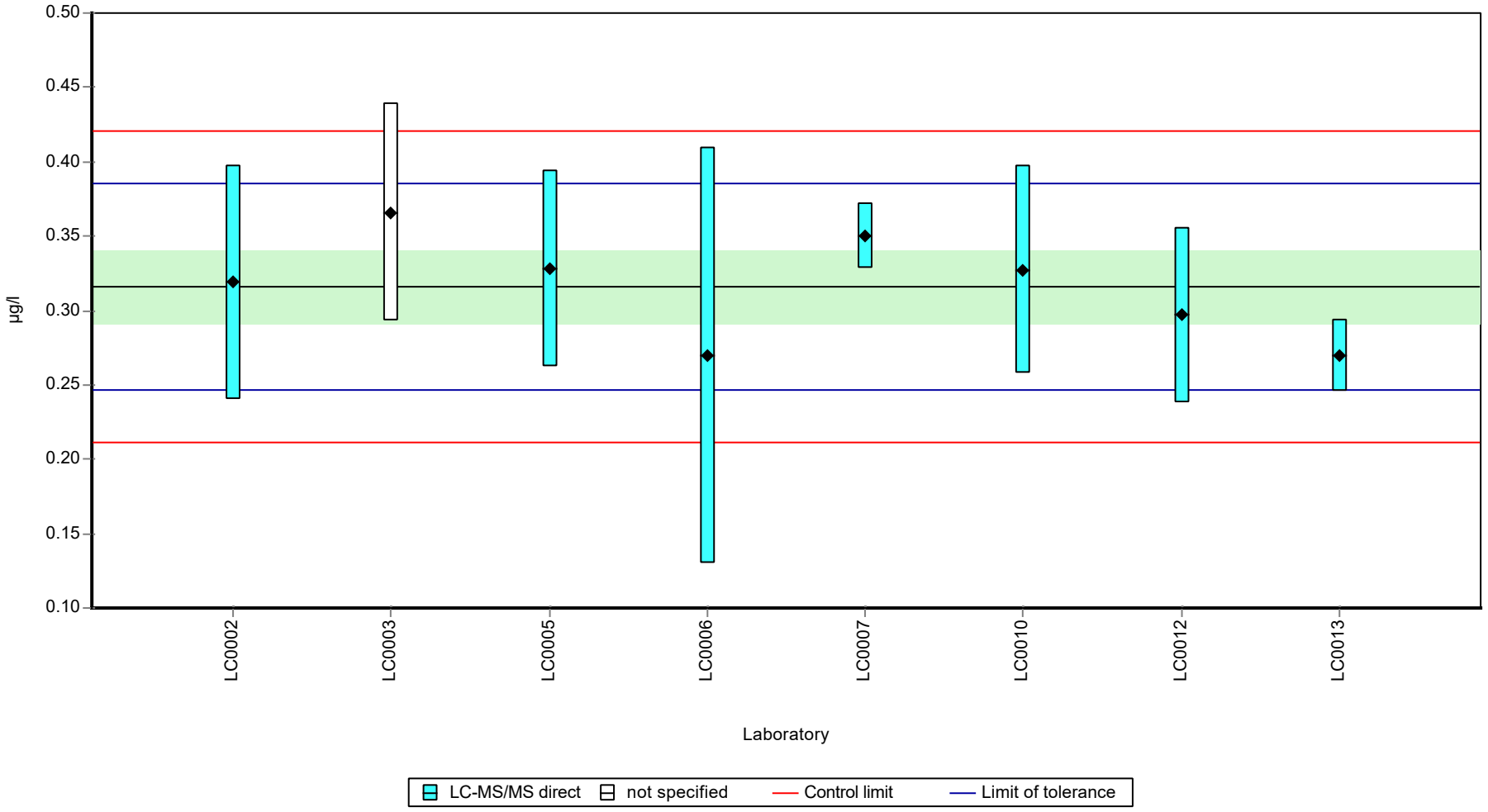
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | 0.319 | 0.079 | 101 | 0.09 | |
| LC0003 | 0.366 | 0.073 | 116 | 1.43 | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.328 | 0.066 | 104 | 0.35 | |
| LC0006 | 0.27 | 0.14 | 85.5 | -1.32 | |
| LC0007 | 0.35 | 0.022 | 111 | 0.98 | |
| LC0008 | - | - | - | - | |
| LC0009 | - | - | - | - | |
| LC0010 | 0.3273 | 0.07 | 104 | 0.33 | |
| LC0011 | - | - | - | - | |
| LC0012 | 0.297 | 0.059 | 94 | -0.54 | |
| LC0013 | 0.27 | 0.024 | 85.5 | -1.32 | |
| LC0014 | - | - | - | - | |
| LC0015 | - | - | - | - | |
| LC0016 | - | - | - | - | |

### Characteristics of parameter

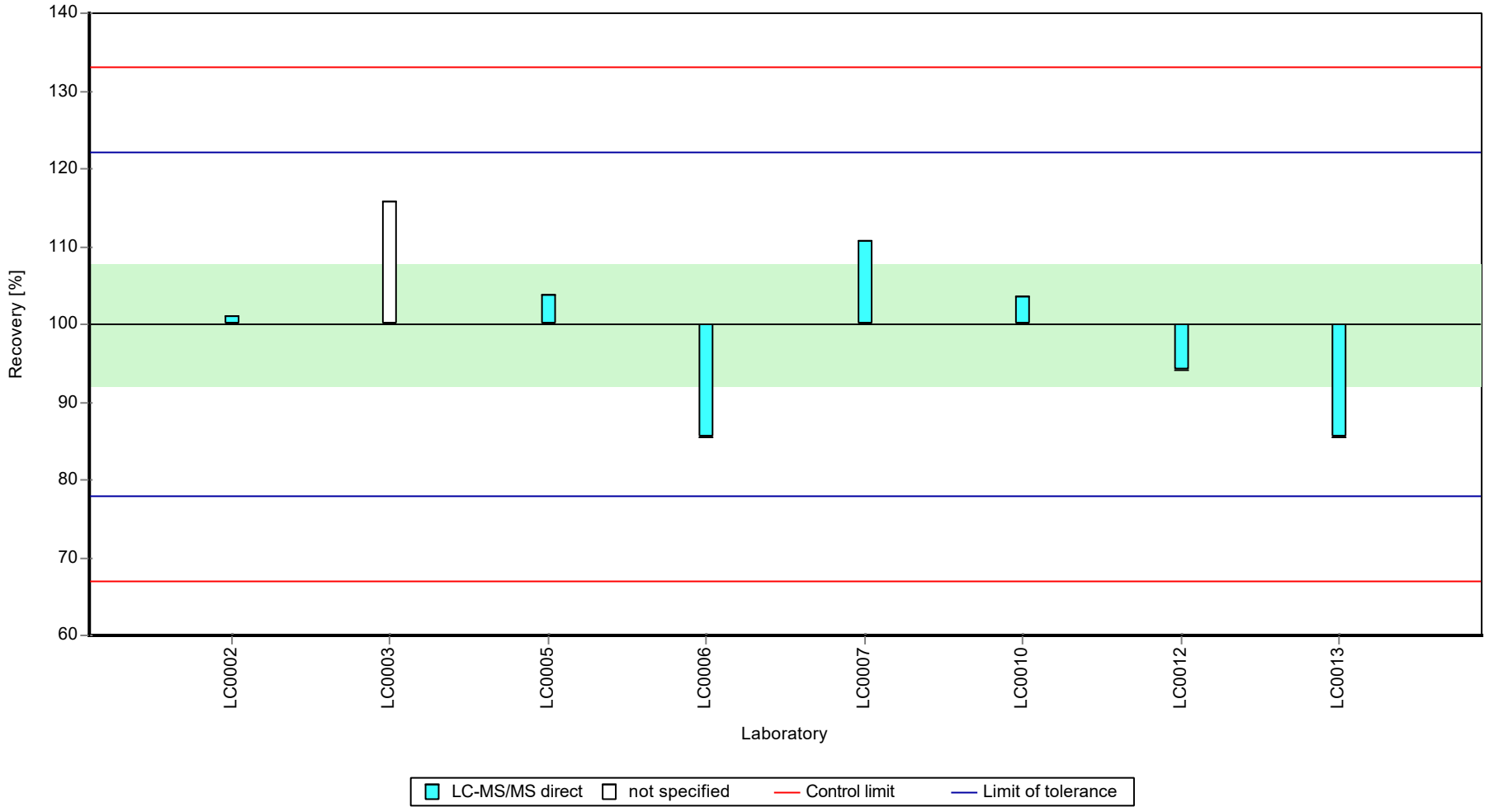
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.316 ± 0.037 | 0.316 ± 0.037 | µg/l |
| Minimum | 0.27 | 0.27 | µg/l |
| Maximum | 0.366 | 0.366 | µg/l |
| Standard deviation | 0.0349 | 0.0349 | µg/l |
| rel. standard deviation | 11 | 11 | % |
| n | 8 | 8 | - |

**Graphical presentation of results**

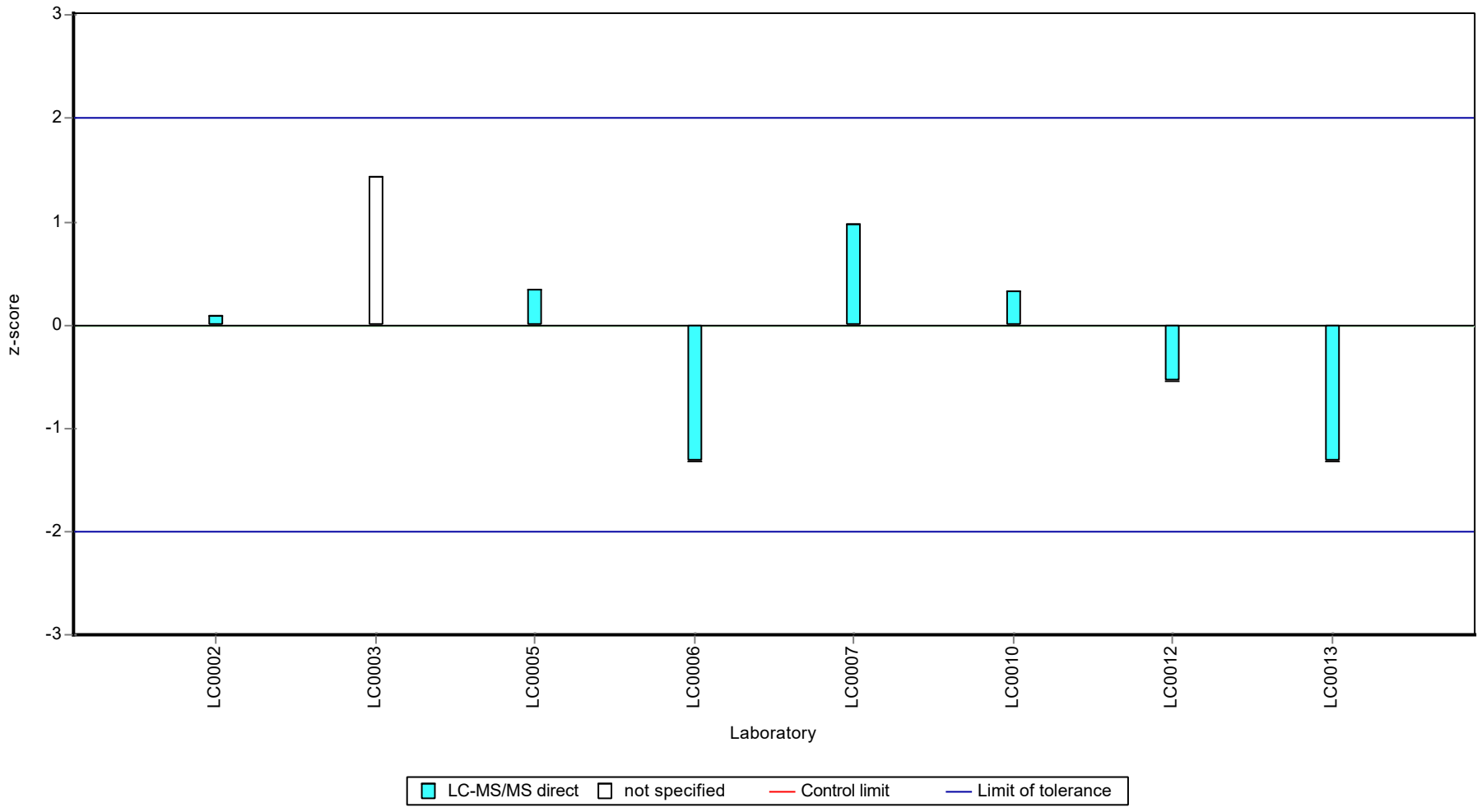
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0002
LC0003
LC0005
LC0006
LC0007
LC0010
LC0012
LC0013
Laboratory
LC-MS/MS direct
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 B

## Atenolol

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.377 ± 0.0648 |
| Criterion | 0.0792 (21 %) |
| Minimum - Maximum | 0.288 - 0.506 |
| Control test value ± U (k=2) | 0.471 ± 0.0706 |

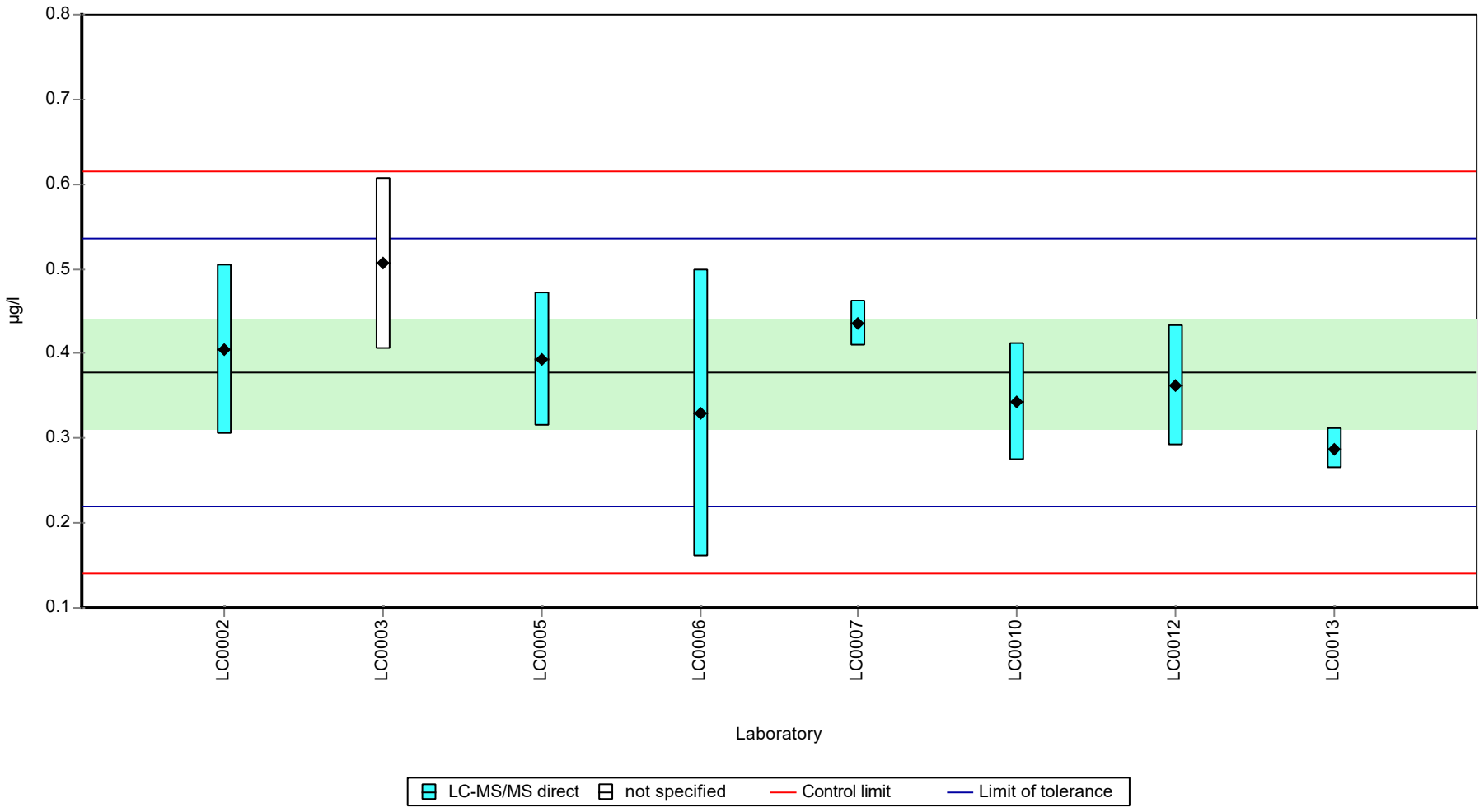
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | 0.404 | 0.1 | 107 | 0.34 | |
| LC0003 | 0.506 | 0.101 | 134 | 1.62 | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.393 | 0.079 | 104 | 0.2 | |
| LC0006 | 0.33 | 0.17 | 87.5 | -0.6 | |
| LC0007 | 0.435 | 0.027 | 115 | 0.73 | |
| LC0008 | - | - | - | - | |
| LC0009 | - | - | - | - | |
| LC0010 | 0.3428 | 0.07 | 90.9 | -0.43 | |
| LC0011 | - | - | - | - | |
| LC0012 | 0.362 | 0.072 | 95.9 | -0.19 | |
| LC0013 | 0.288 | 0.025 | 76.3 | -1.13 | |
| LC0014 | - | - | - | - | |
| LC0015 | - | - | - | - | |
| LC0016 | - | - | - | - | |

**Characteristics of parameter**

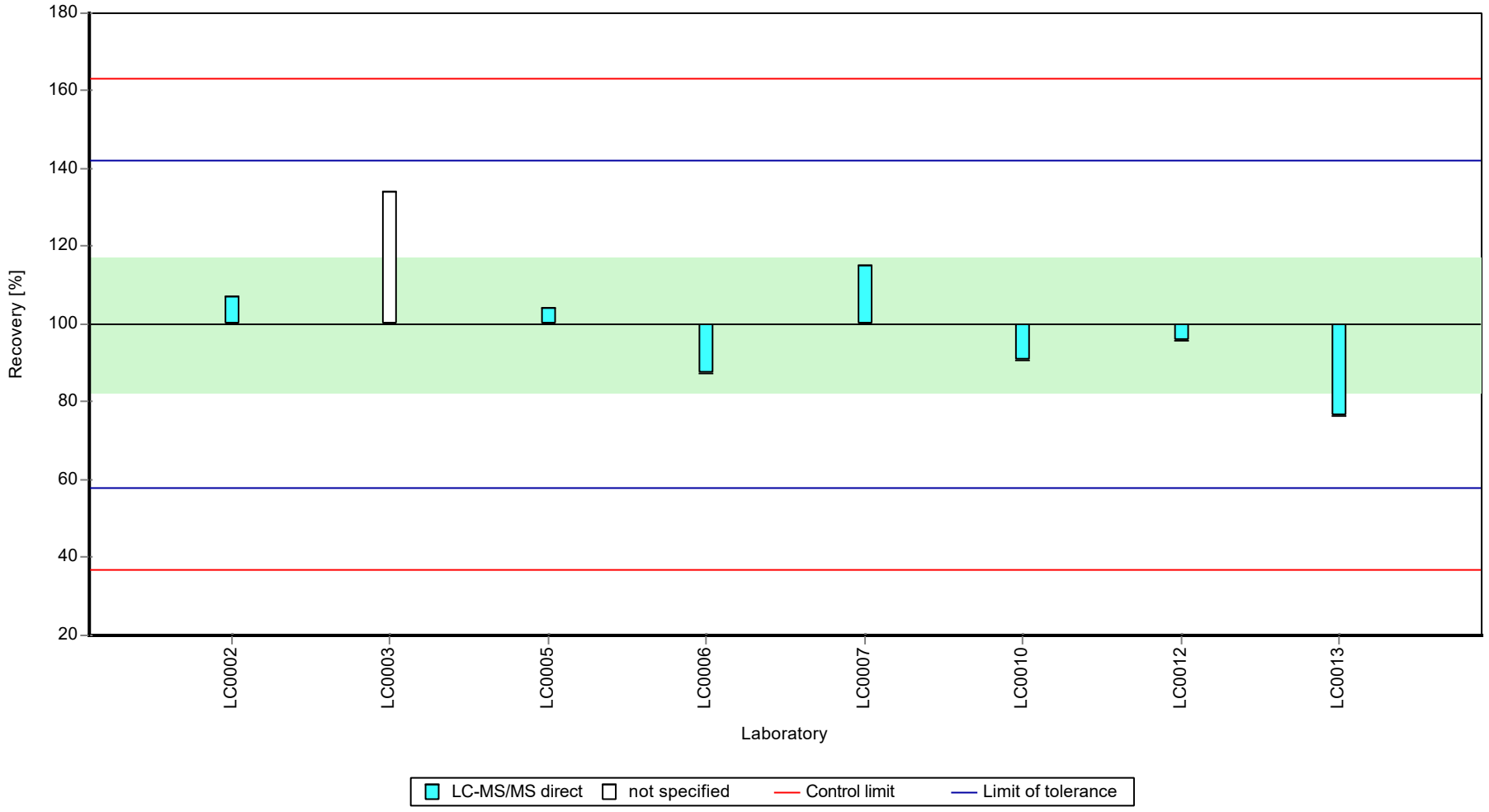
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.383 ± 0.072 | 0.383 ± 0.072 | µg/l |
| Minimum | 0.288 | 0.288 | µg/l |
| Maximum | 0.506 | 0.506 | µg/l |
| Standard deviation | 0.0679 | 0.0679 | µg/l |
| rel. standard deviation | 17.7 | 17.7 | % |
| n | 8 | 8 | - |

**Graphical presentation of results**

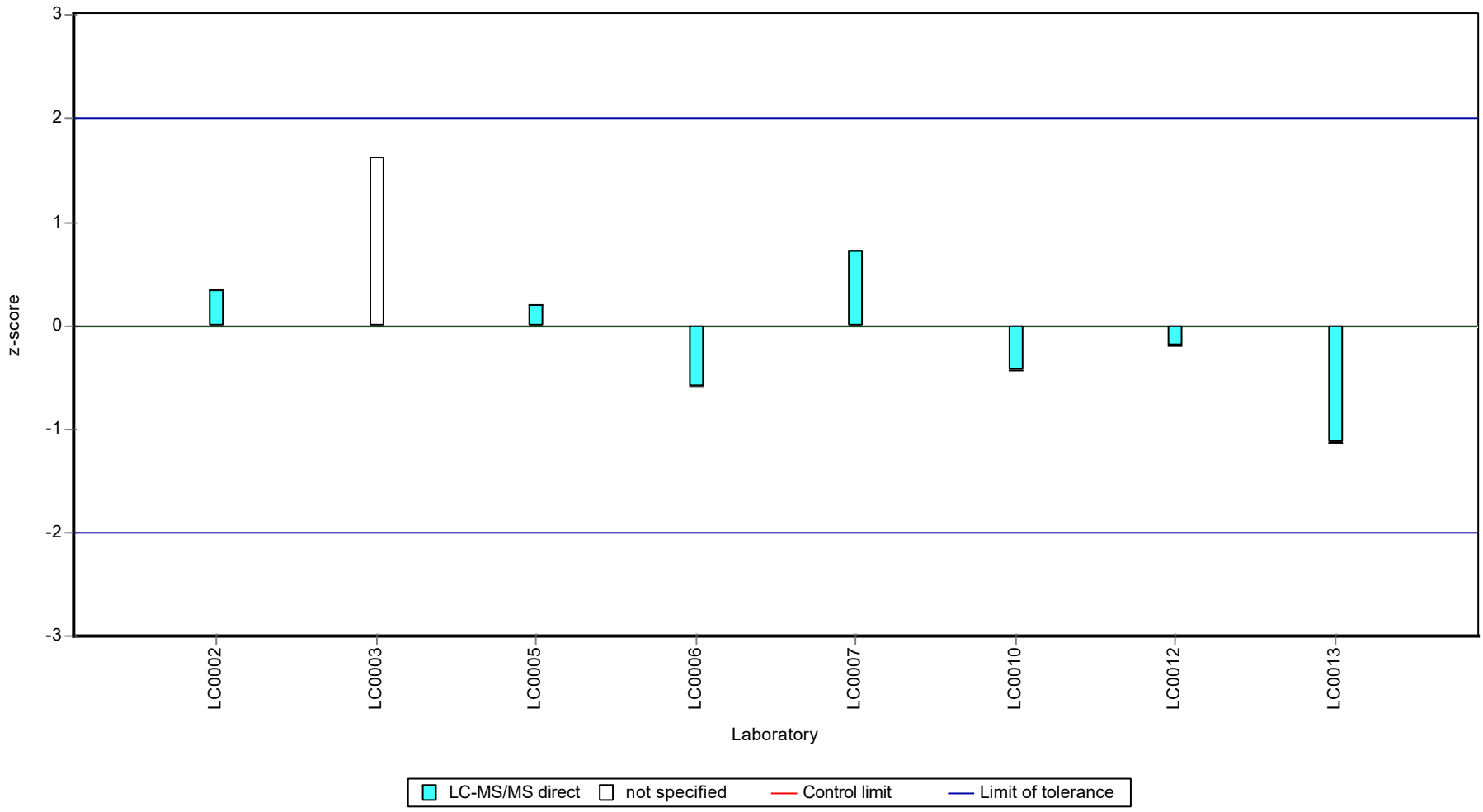
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0002
LC0003
LC0005
LC0006
LC0007
LC0010
LC0012
LC0013
Laboratory
LC-MS/MS direct
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 A

## Benzotriazole

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.147 ± 0.00852 |
| Criterion | 0.0177 (12 %) |
| Minimum - Maximum | 0.12 - 0.16 |
| Control test value ± U (k=2) | 0.187 ± 0.0281 |

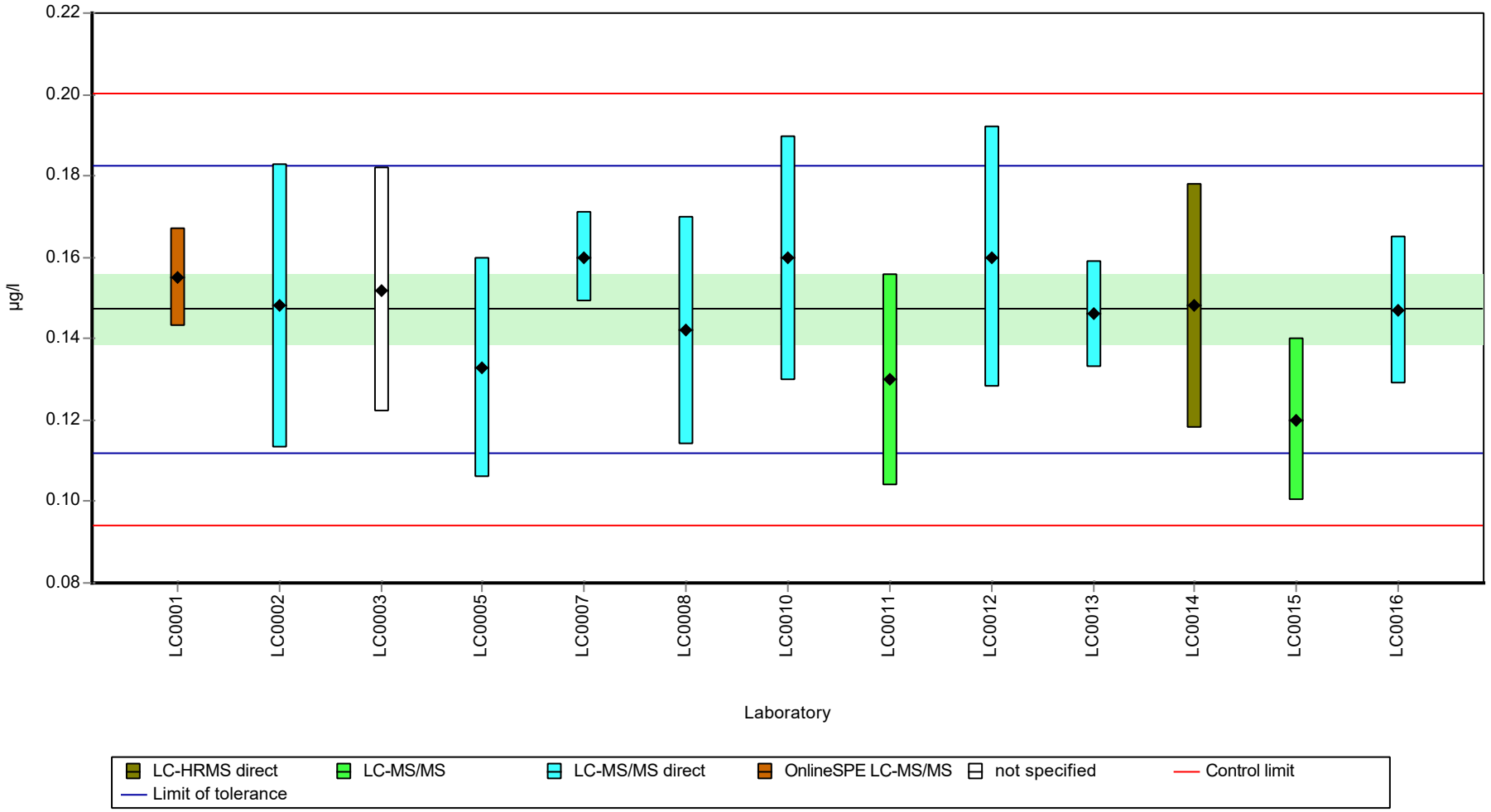
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | 0.155 | 0.012 | 105 | 0.44 | |
| LC0002 | 0.148 | 0.035 | 100 | 0.04 | |
| LC0003 | 0.152 | 0.03 | 103 | 0.27 | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.133 | 0.027 | 90.3 | -0.81 | |
| LC0006 | - | - | - | - | |
| LC0007 | 0.16 | 0.011 | 109 | 0.72 | |
| LC0008 | 0.142 | 0.028 | 96.4 | -0.3 | |
| LC0009 | - | - | - | - | |
| LC0010 | 0.1598 | 0.03 | 109 | 0.71 | |
| LC0011 | 0.13 | 0.026 | 88.3 | -0.98 | |
| LC0012 | 0.16 | 0.032 | 109 | 0.72 | |
| LC0013 | 0.146 | 0.013 | 99.1 | -0.07 | |
| LC0014 | 0.148 | 0.03 | 100 | 0.04 | |
| LC0015 | 0.12 | 0.02 | 81.5 | -1.54 | |
| LC0016 | 0.147 | 0.018 | 99.8 | -0.02 | |

**Characteristics of parameter**

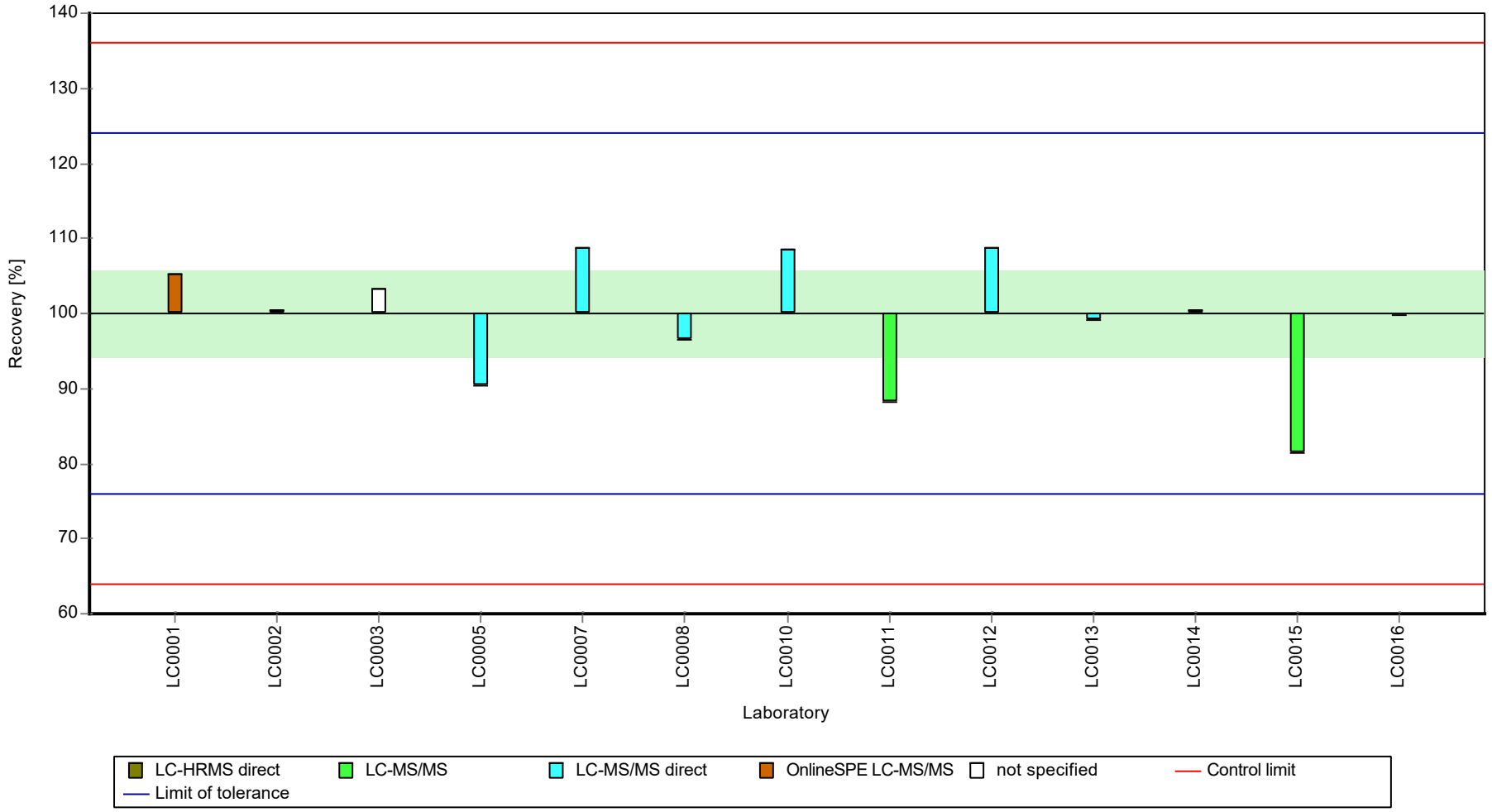
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.146 ± 0.0103 | 0.146 ± 0.0103 | µg/l |
| Minimum | 0.12 | 0.12 | µg/l |
| Maximum | 0.16 | 0.16 | µg/l |
| Standard deviation | 0.0123 | 0.0123 | µg/l |
| rel. standard deviation | 8.43 | 8.43 | % |
| n | 13 | 13 | - |

**Graphical presentation of results**

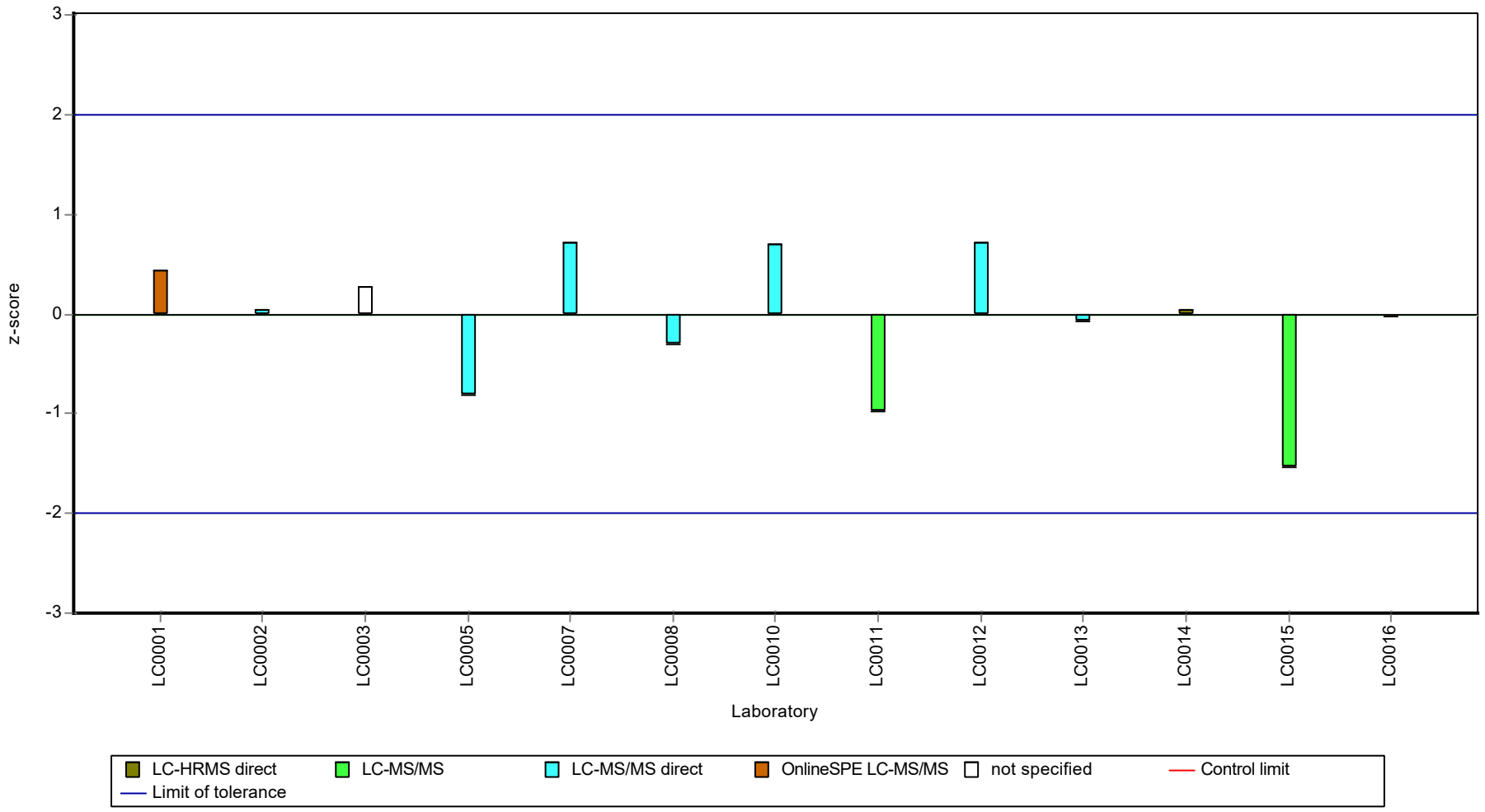
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0003
LC0005
LC0007
LC0008
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
Laboratory
LC-HRMS direct
LC-MS/MS
LC-MS/MS direct
OnlineSPE LC-MS/MS
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 B

## Benzotriazole

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 11.1 ± 0.511 |
| Criterion | 1.33 (12 %) |
| Minimum - Maximum | 9.96 - 12.5 |
| Control test value ± U (k=2) | - |

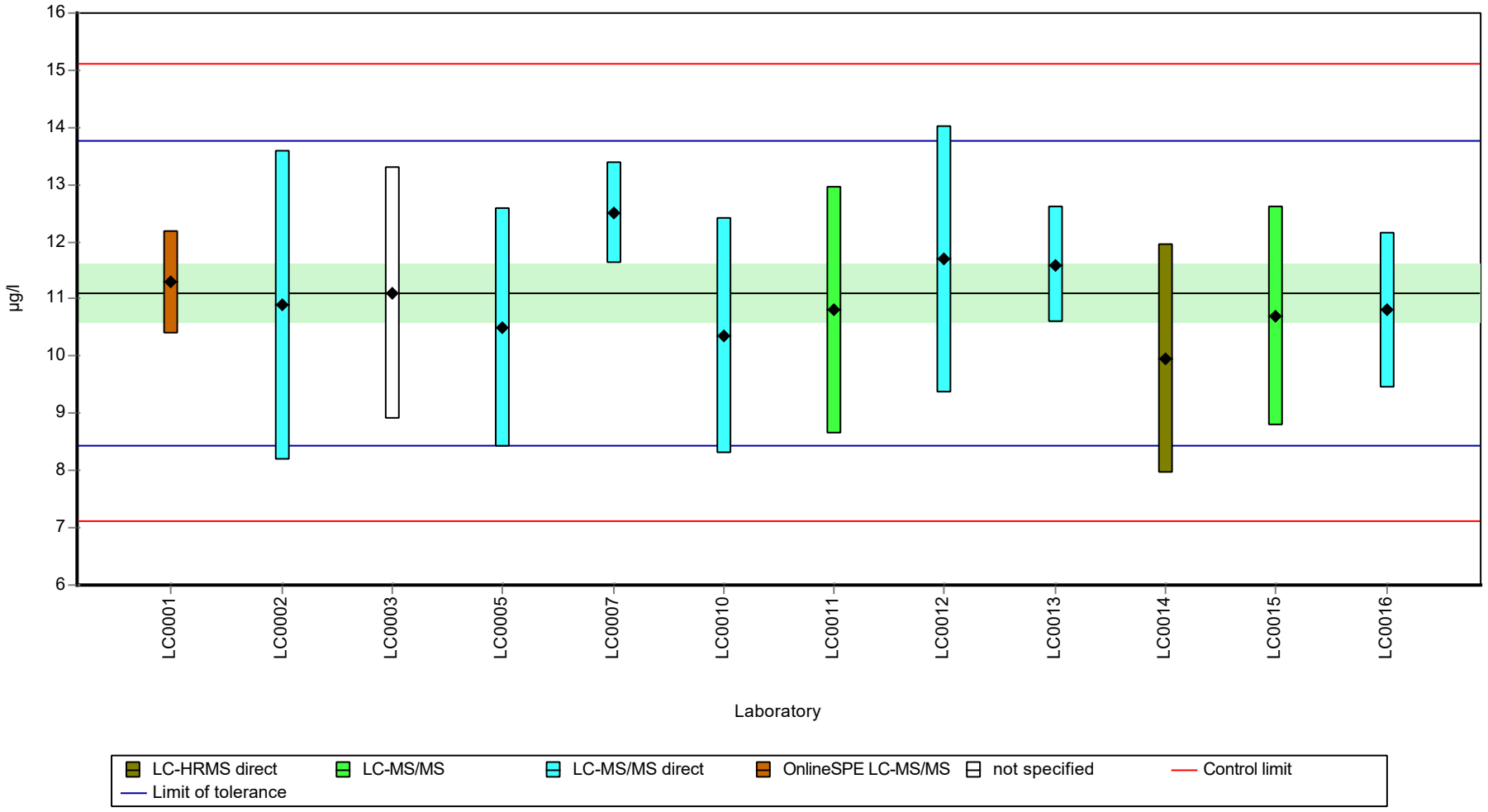
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | 11.295 | 0.904 | 102 | 0.14 | |
| LC0002 | 10.89 | 2.7 | 98 | -0.17 | |
| LC0003 | 11.1 | 2.2 | 99.9 | -0.01 | |
| LC0004 | - | - | - | - | |
| LC0005 | 10.5 | 2.1 | 94.5 | -0.46 | |
| LC0006 | - | - | - | - | |
| LC0007 | 12.5 | 0.883 | 112 | 1.04 | |
| LC0008 | - | - | - | - | |
| LC0009 | - | - | - | - | |
| LC0010 | 10.3585 | 2.07 | 93.2 | -0.56 | |
| LC0011 | 10.8 | 2.15 | 97.2 | -0.23 | |
| LC0012 | 11.69 | 2.34 | 105 | 0.43 | |
| LC0013 | 11.6 | 1.02 | 104 | 0.37 | |
| LC0014 | 9.96 | 2 | 89.6 | -0.86 | |
| LC0015 | 10.7 | 1.93 | 96.3 | -0.31 | |
| LC0016 | 10.8 | 1.35 | 97.2 | -0.23 | |

**Characteristics of parameter**

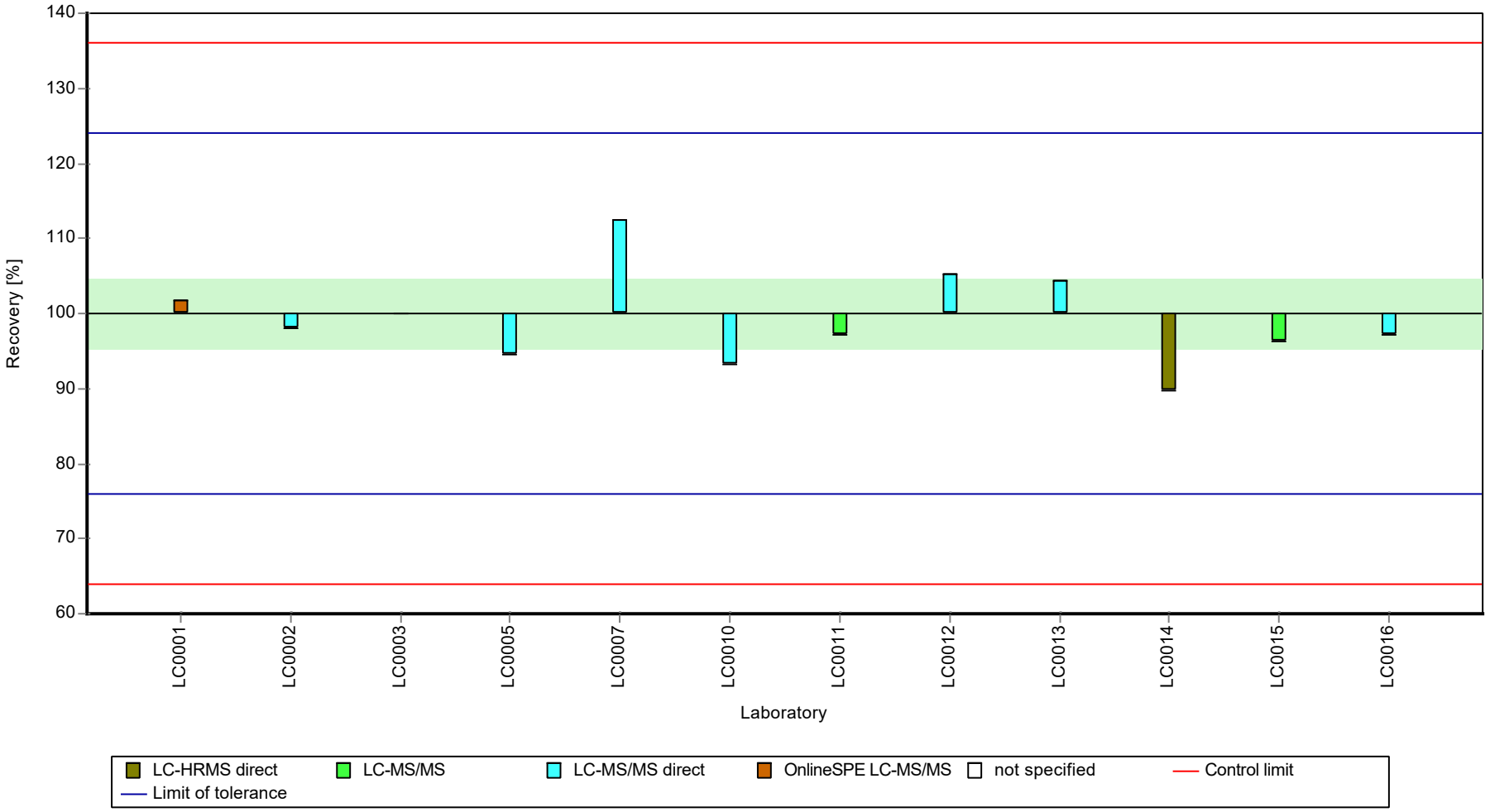
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 11 ± 0.59 | 11 ± 0.59 | µg/l |
| Minimum | 9.96 | 9.96 | µg/l |
| Maximum | 12.5 | 12.5 | µg/l |
| Standard deviation | 0.681 | 0.681 | µg/l |
| rel. standard deviation | 6.18 | 6.18 | % |
| n | 12 | 12 | - |

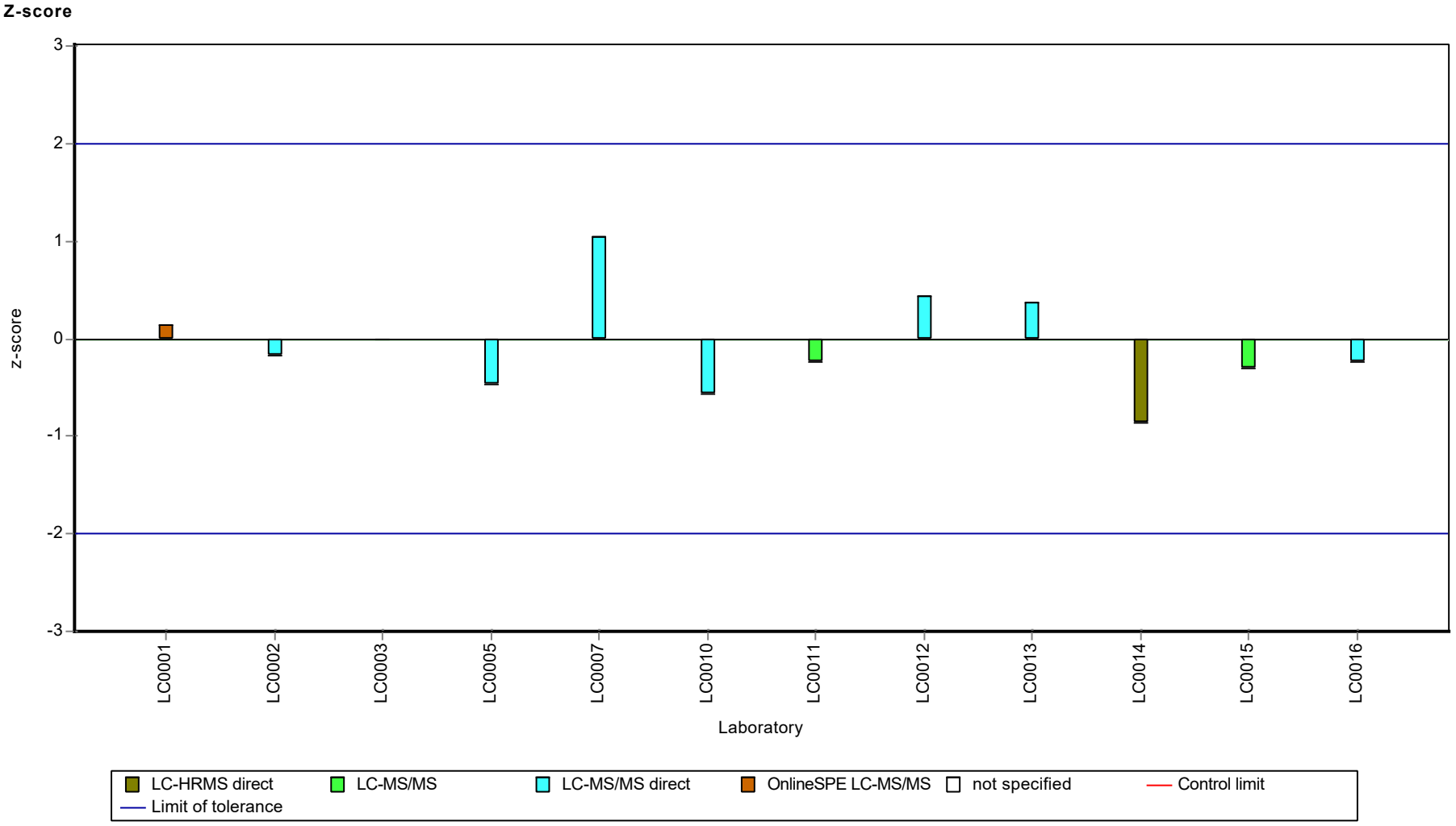
**Graphical presentation of results**

**Results**



**Recovery rate**




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0003
LC0005
LC0007
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
Laboratory
LC-HRMS direct
LC-MS/MS
LC-MS/MS direct
OnlineSPE LC-MS/MS
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 A

## Bisoprolol

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | - |
| Criterion | - |
| Minimum - Maximum | 0.132 - 0.151 |
| Control test value ± U (k=2) | 0.153 ± 0.0229 |

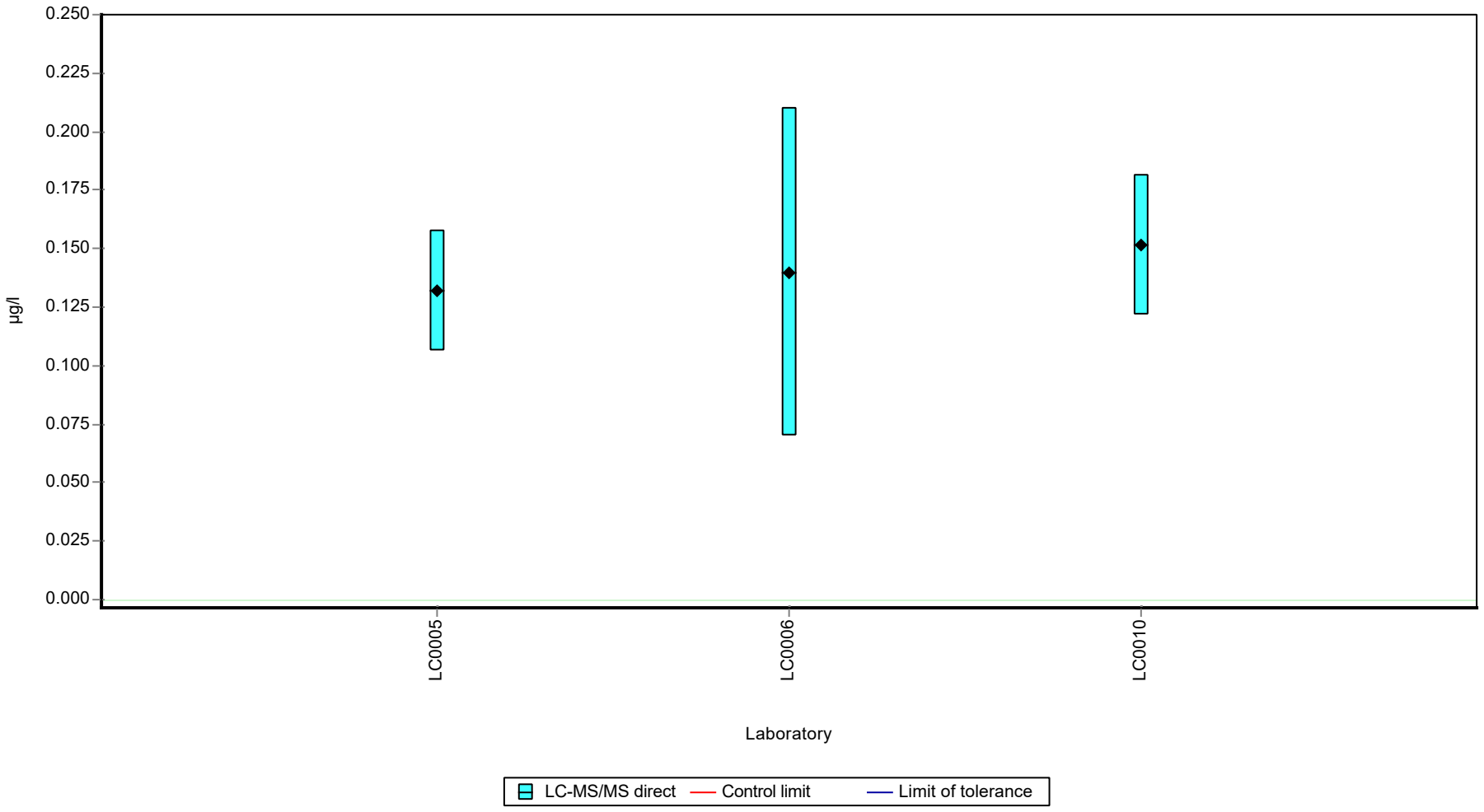
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | - | - | - | - | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.132 | 0.026 | - | - | |
| LC0006 | 0.14 | 0.07 | - | - | |
| LC0007 | - | - | - | - | |
| LC0008 | - | - | - | - | |
| LC0009 | - | - | - | - | |
| LC0010 | 0.1513 | 0.03 | - | - | |
| LC0011 | - | - | - | - | |
| LC0012 | - | - | - | - | |
| LC0013 | - | - | - | - | |
| LC0014 | - | - | - | - | |
| LC0015 | - | - | - | - | |
| LC0016 | - | - | - | - | |

**Characteristics of parameter**

| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.141 ± 0.0168 | - | µg/l |
| Minimum | 0.132 | 0.132 | µg/l |
| Maximum | 0.151 | 0.151 | µg/l |
| Standard deviation | 0.0097 | - | µg/l |
| rel. standard deviation | 6.87 | - | % |
| n | 3 | 3 | - |

**Graphical presentation of results**

**Results**



# Parameter oriented report

## AZ7 B

## Bisoprolol

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | - |
| Criterion | - |
| Minimum - Maximum | 0.254 - 0.29 |
| Control test value ± U (k=2) | 0.323 ± 0.0484 |

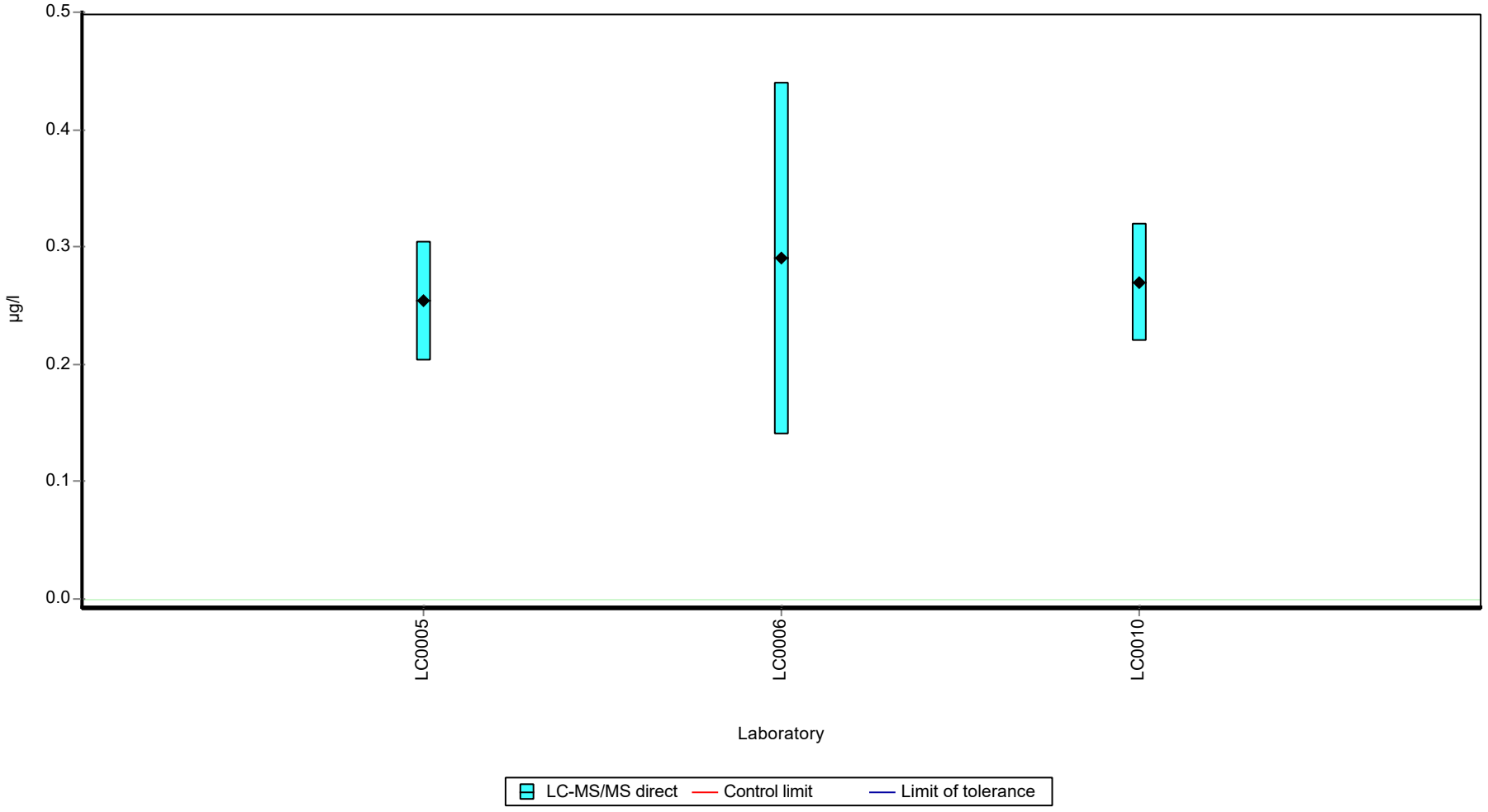
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | - | - | - | - | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.254 | 0.051 | - | - | |
| LC0006 | 0.29 | 0.15 | - | - | |
| LC0007 | - | - | - | - | |
| LC0008 | - | - | - | - | |
| LC0009 | - | - | - | - | |
| LC0010 | 0.2695 | 0.05 | - | - | |
| LC0011 | - | - | - | - | |
| LC0012 | - | - | - | - | |
| LC0013 | - | - | - | - | |
| LC0014 | - | - | - | - | |
| LC0015 | - | - | - | - | |
| LC0016 | - | - | - | - | |

**Characteristics of parameter**

| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.271 ± 0.0313 | - | µg/l |
| Minimum | 0.254 | 0.254 | µg/l |
| Maximum | 0.29 | 0.29 | µg/l |
| Standard deviation | 0.0181 | - | µg/l |
| rel. standard deviation | 6.66 | - | % |
| n | 3 | 3 | - |

**Graphical presentation of results**

**Results**



# Parameter oriented report

## AZ7 A

## Carbamazepine

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.301 ± 0.0116 |
| Criterion | 0.0391 (13 %) |
| Minimum - Maximum | 0.257 - 0.34 |
| Control test value ± U (k=2) | 0.344 ± 0.0516 |

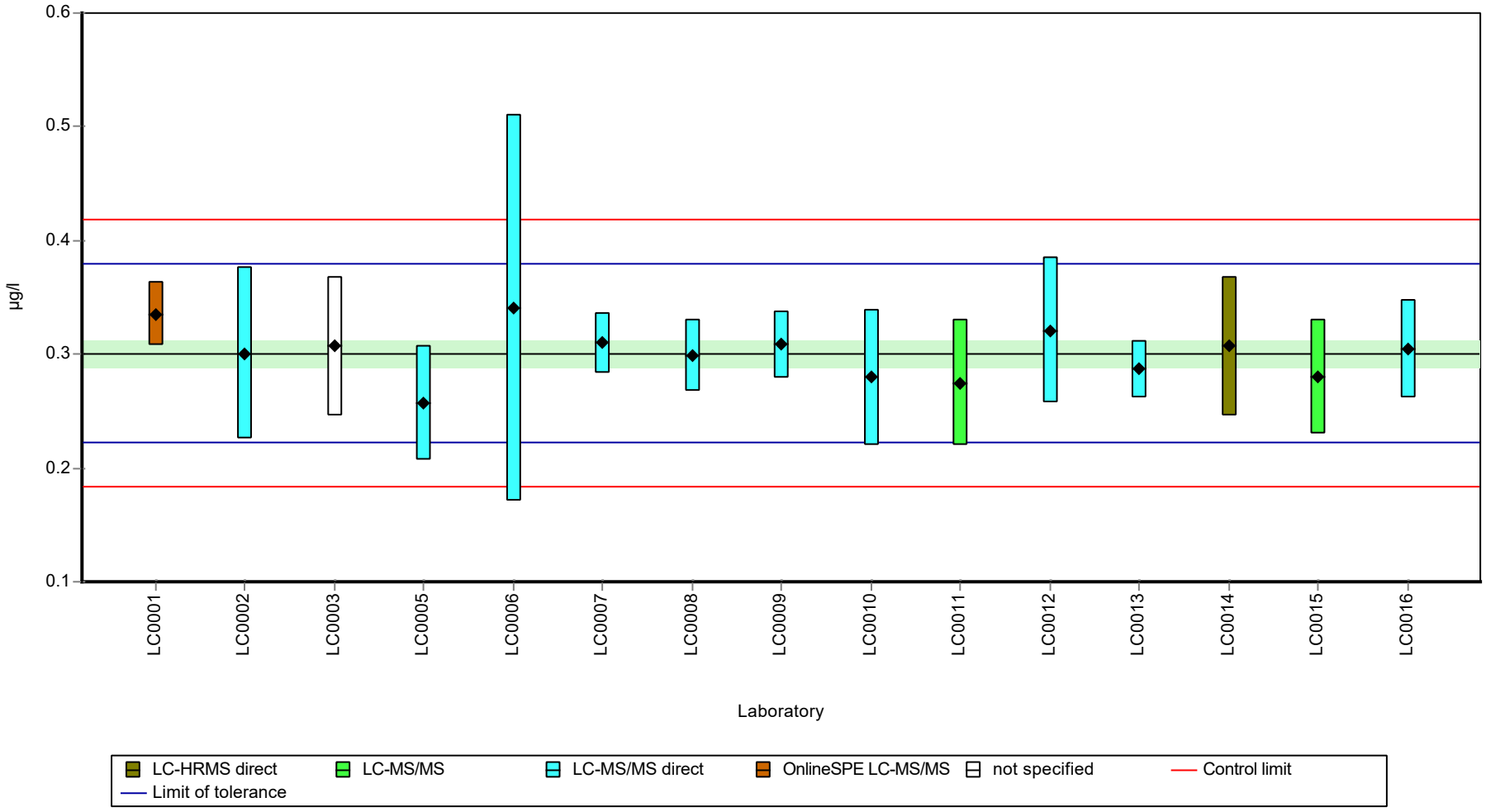
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | 0.335 | 0.028 | 111 | 0.88 | |
| LC0002 | 0.301 | 0.075 | 100 | 0.01 | |
| LC0003 | 0.307 | 0.061 | 102 | 0.16 | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.257 | 0.051 | 85.4 | -1.12 | |
| LC0006 | 0.34 | 0.17 | 113 | 1 | |
| LC0007 | 0.31 | 0.027 | 103 | 0.24 | |
| LC0008 | 0.299 | 0.032 | 99.4 | -0.05 | |
| LC0009 | 0.3083 | 0.03 | 102 | 0.19 | |
| LC0010 | 0.2795 | 0.06 | 92.9 | -0.54 | |
| LC0011 | 0.275 | 0.055 | 91.4 | -0.66 | |
| LC0012 | 0.321 | 0.064 | 107 | 0.52 | |
| LC0013 | 0.287 | 0.025 | 95.4 | -0.35 | |
| LC0014 | 0.307 | 0.061 | 102 | 0.16 | |
| LC0015 | 0.28 | 0.05 | 93.1 | -0.53 | |
| LC0016 | 0.305 | 0.043 | 101 | 0.11 | |

**Characteristics of parameter**

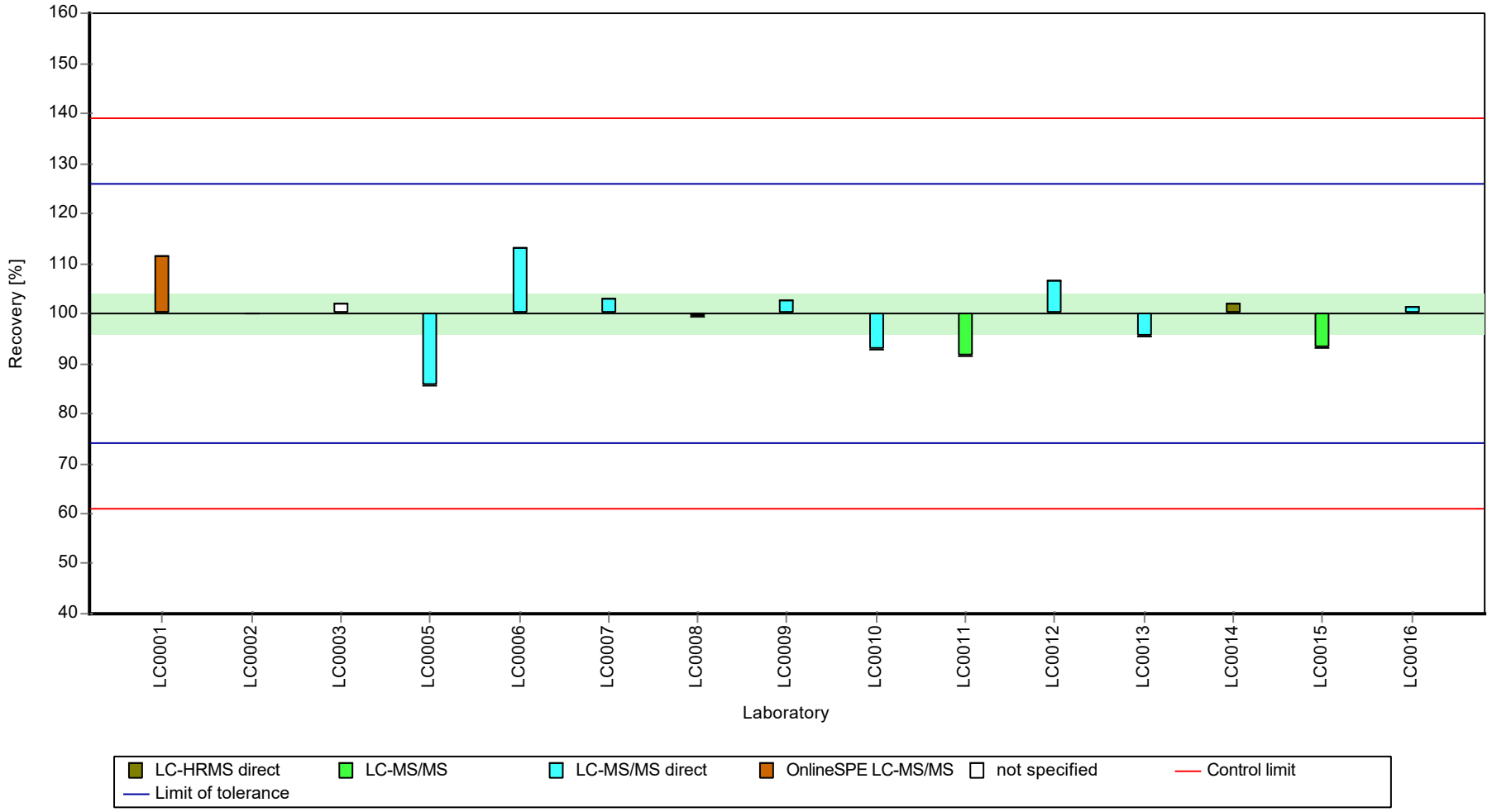
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.301 ± 0.0173 | 0.301 ± 0.0173 | µg/l |
| Minimum | 0.257 | 0.257 | µg/l |
| Maximum | 0.34 | 0.34 | µg/l |
| Standard deviation | 0.0224 | 0.0224 | µg/l |
| rel. standard deviation | 7.44 | 7.44 | % |
| n | 15 | 15 | - |

**Graphical presentation of results**

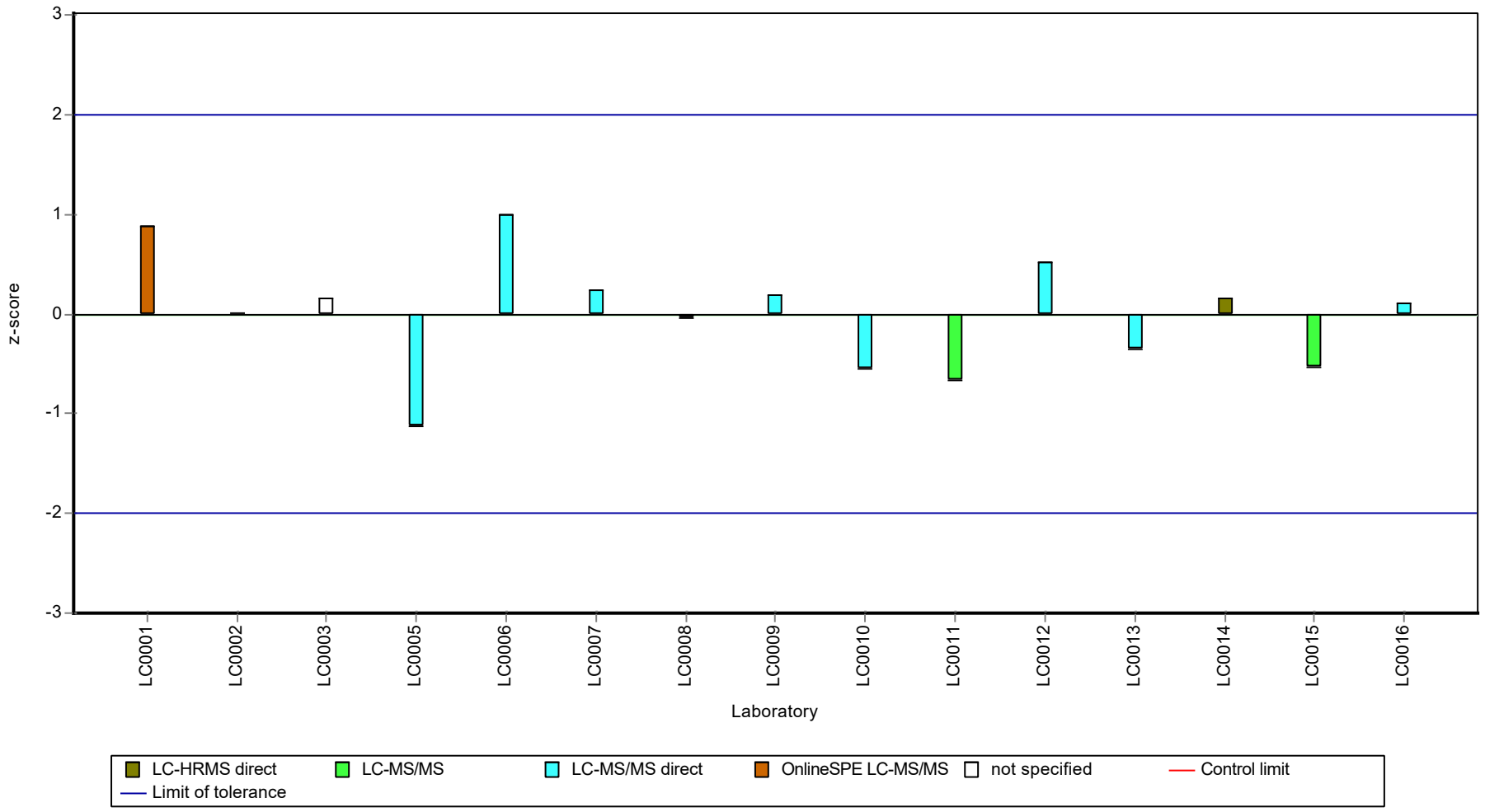
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0003
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
Laboratory
LC-HRMS direct
LC-MS/MS
LC-MS/MS direct
OnlineSPE LC-MS/MS
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 B

## Carbamazepine

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.426 ± 0.0317 |
| Criterion | 0.0554 (13 %) |
| Minimum - Maximum | 0.34 - 0.48 |
| Control test value ± U (k=2) | 0.496 ± 0.0744 |

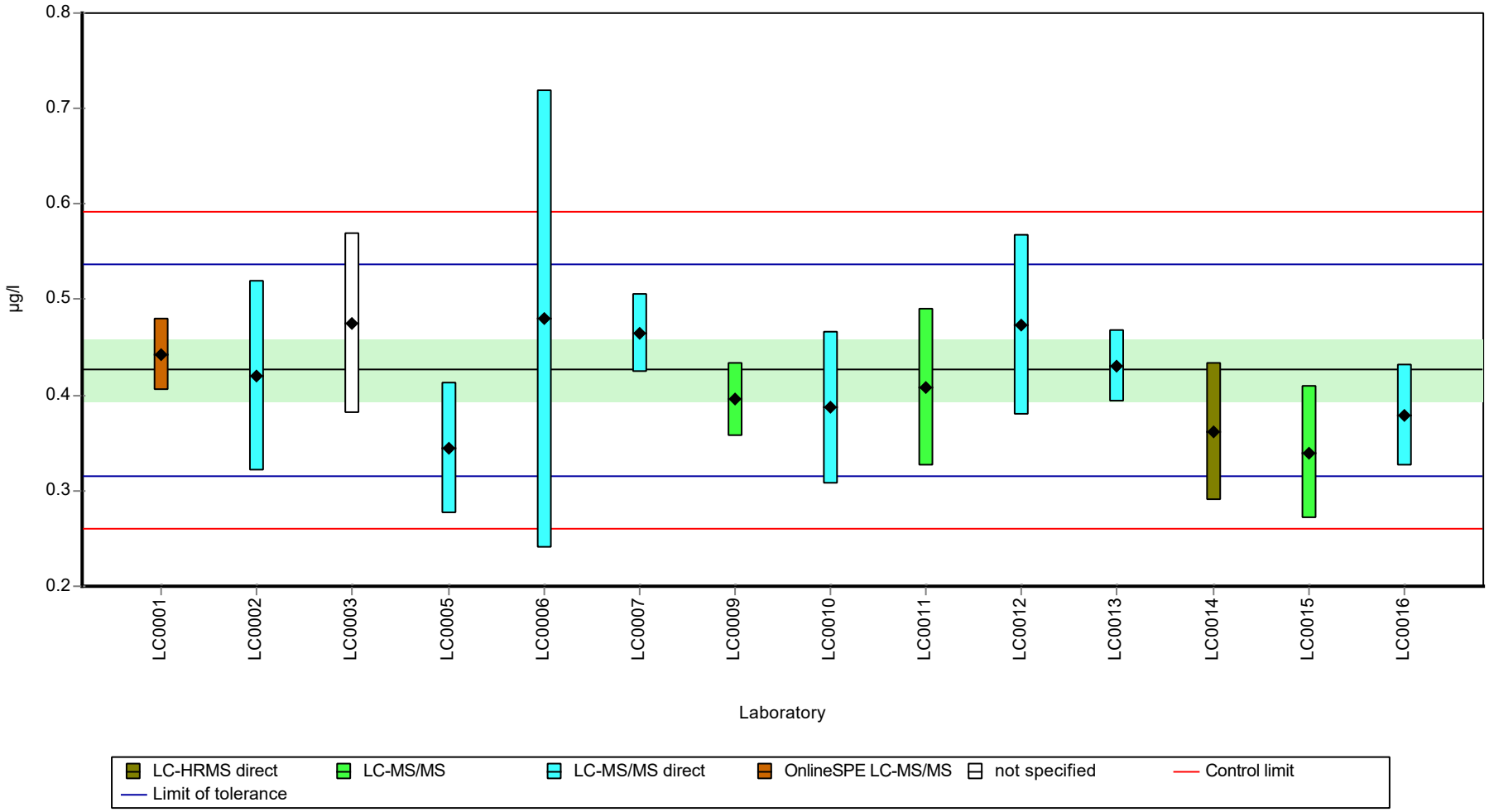
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | 0.443 | 0.038 | 104 | 0.3 | |
| LC0002 | 0.42 | 0.1 | 98.5 | -0.11 | |
| LC0003 | 0.475 | 0.095 | 111 | 0.88 | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.345 | 0.069 | 80.9 | -1.47 | |
| LC0006 | 0.48 | 0.24 | 113 | 0.97 | |
| LC0007 | 0.465 | 0.041 | 109 | 0.7 | |
| LC0008 | - | - | - | - | |
| LC0009 | 0.3955 | 0.039 | 92.8 | -0.56 | |
| LC0010 | 0.3873 | 0.08 | 90.8 | -0.7 | |
| LC0011 | 0.408 | 0.082 | 95.7 | -0.33 | |
| LC0012 | 0.473 | 0.095 | 111 | 0.84 | |
| LC0013 | 0.43 | 0.038 | 101 | 0.07 | |
| LC0014 | 0.362 | 0.072 | 84.9 | -1.16 | |
| LC0015 | 0.34 | 0.07 | 79.8 | -1.56 | |
| LC0016 | 0.379 | 0.053 | 88.9 | -0.85 | |

**Characteristics of parameter**

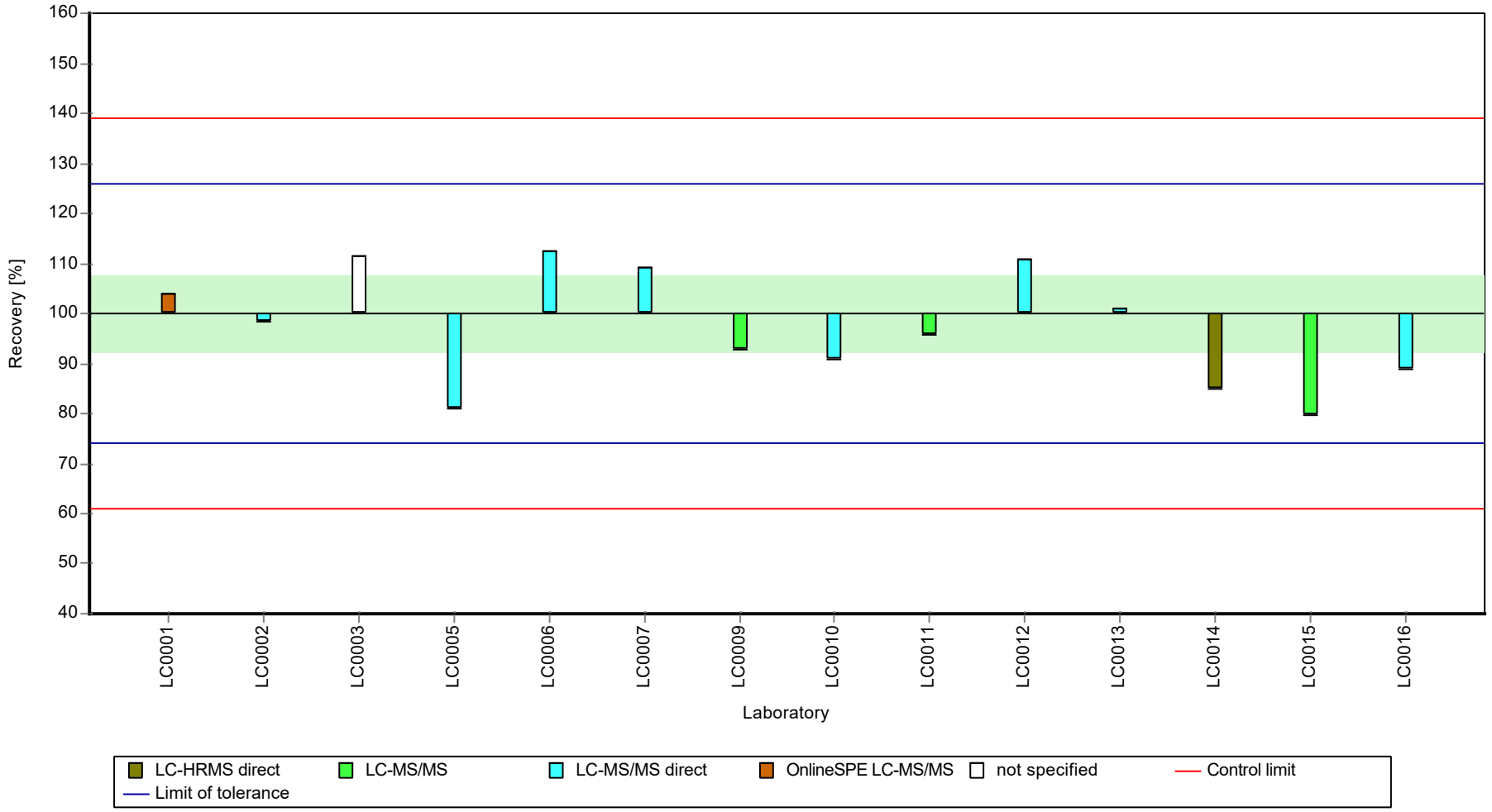
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.414 ± 0.0389 | 0.414 ± 0.0389 | µg/l |
| Minimum | 0.34 | 0.34 | µg/l |
| Maximum | 0.48 | 0.48 | µg/l |
| Standard deviation | 0.0485 | 0.0485 | µg/l |
| rel. standard deviation | 11.7 | 11.7 | % |
| n | 14 | 14 | - |

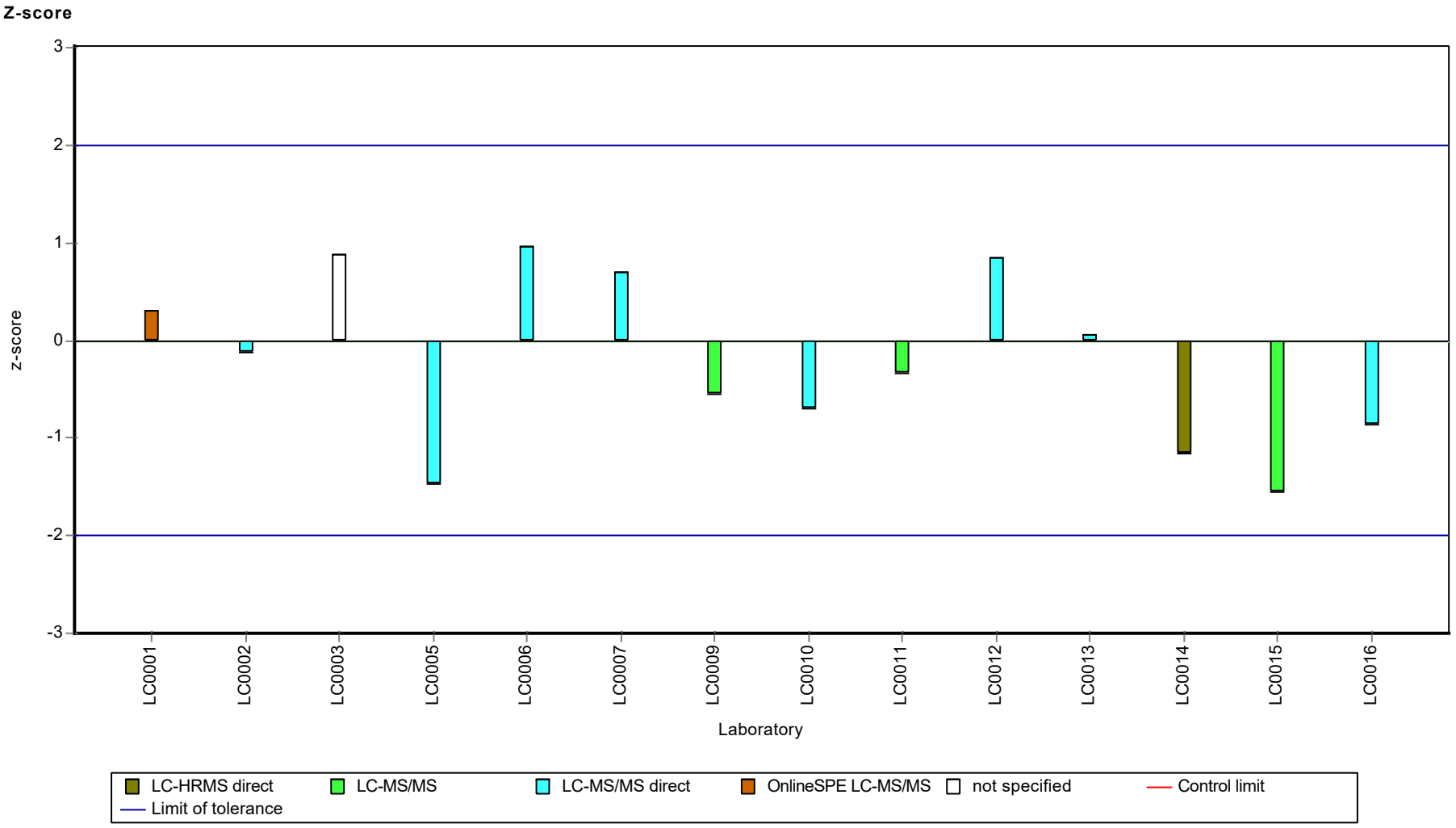
**Graphical presentation of results**

**Results**



**Recovery rate**




Z-score
z-score
3
2
1
0
-1
-2
-3
LC0001
LC0002
LC0003
LC0005
LC0006
LC0007
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
Laboratory
LC-HRMS direct
LC-MS/MS
LC-MS/MS direct
OnlineSPE LC-MS/MS
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 A

## Cyclamate

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.0311 ± 0.00459 |
| Criterion | 0.00533 (17 %) |
| Minimum - Maximum | 0.021 - 0.04 |
| Control test value ± U (k=2) | - |

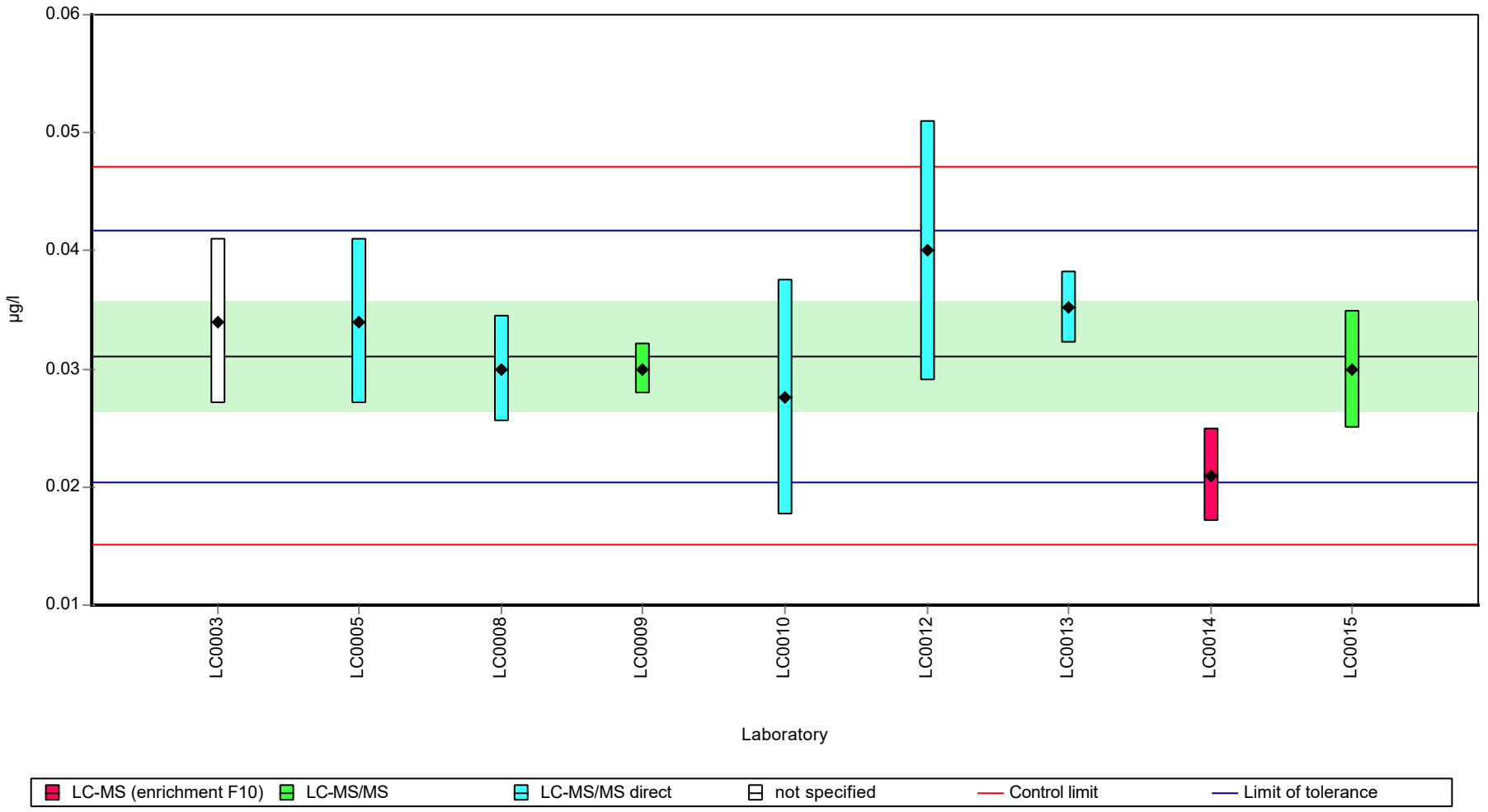
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | 0.034 | 0.007 | 109 | 0.54 | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.034 | 0.007 | 109 | 0.54 | |
| LC0006 | - | - | - | - | |
| LC0007 | - | - | - | - | |
| LC0008 | 0.03 | 0.0045 | 96.4 | -0.21 | |
| LC0009 | 0.03 | 0.0022 | 96.4 | -0.21 | |
| LC0010 | 0.0276 | 0.01 | 88.7 | -0.66 | |
| LC0011 | - | - | - | - | |
| LC0012 | 0.04 | 0.011 | 129 | 1.67 | |
| LC0013 | 0.0352 | 0.0031 | 113 | 0.77 | |
| LC0014 | 0.021 | 0.004 | 67.5 | -1.9 | |
| LC0015 | 0.03 | 0.005 | 96.4 | -0.21 | |
| LC0016 | - | - | - | - | |

**Characteristics of parameter**

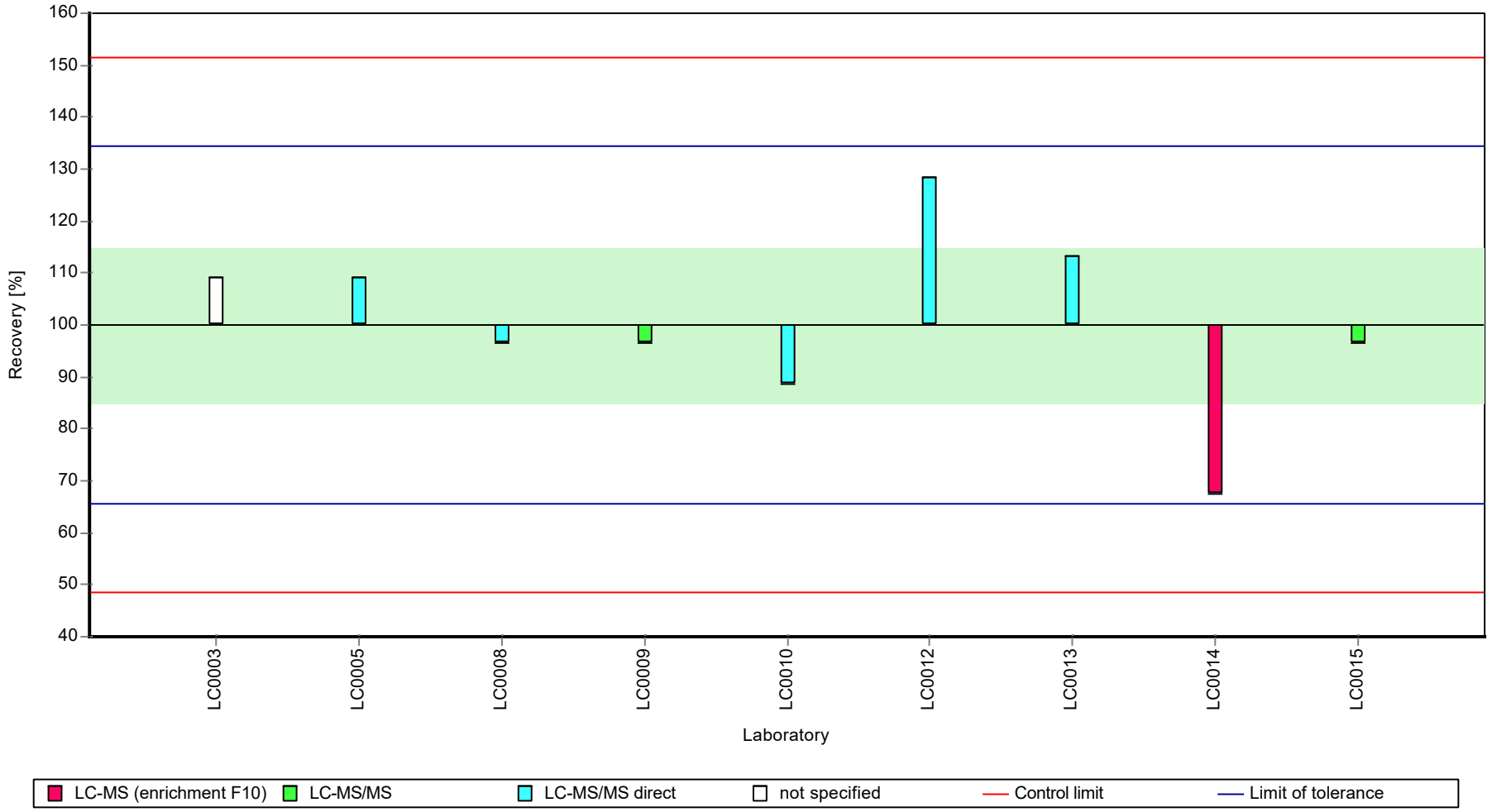
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.0313 ± 0.00537 | 0.0313 ± 0.00537 | µg/l |
| Minimum | 0.021 | 0.021 | µg/l |
| Maximum | 0.04 | 0.04 | µg/l |
| Standard deviation | 0.00537 | 0.00537 | µg/l |
| rel. standard deviation | 17.1 | 17.1 | % |
| n | 9 | 9 | - |

**Graphical presentation of results**

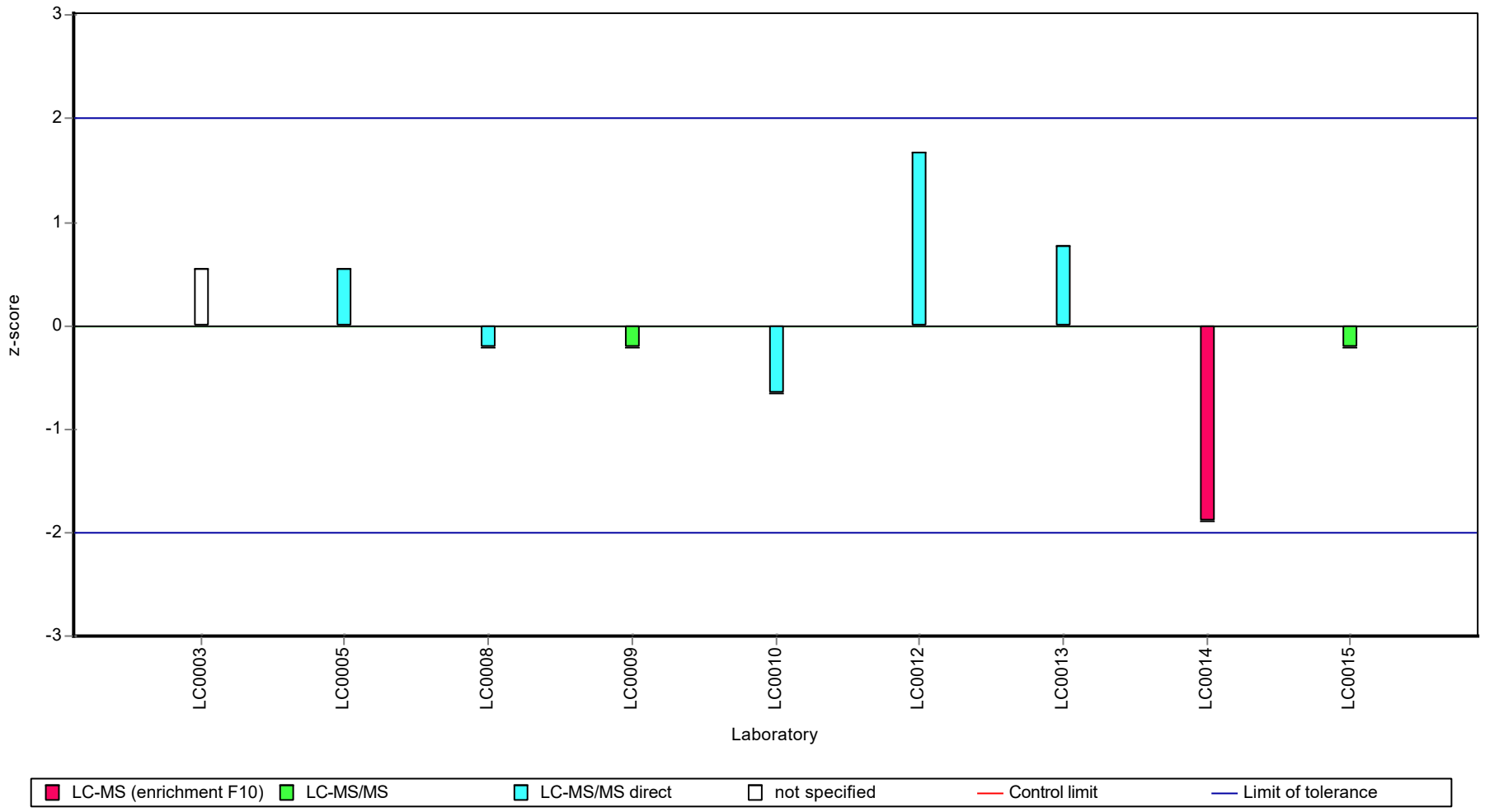
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0003
LC0005
LC0008
LC0009
LC0010
LC0012
LC0013
LC0014
LC0015
Laboratory
LC-MS (enrichment F10)
LC-MS/MS
LC-MS/MS direct
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 B

## Cyclamate

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.276 ± 0.0279 |
| Criterion | 0.0369 (13 %) |
| Minimum - Maximum | 0.218 - 0.317 |
| Control test value ± U (k=2) | - |

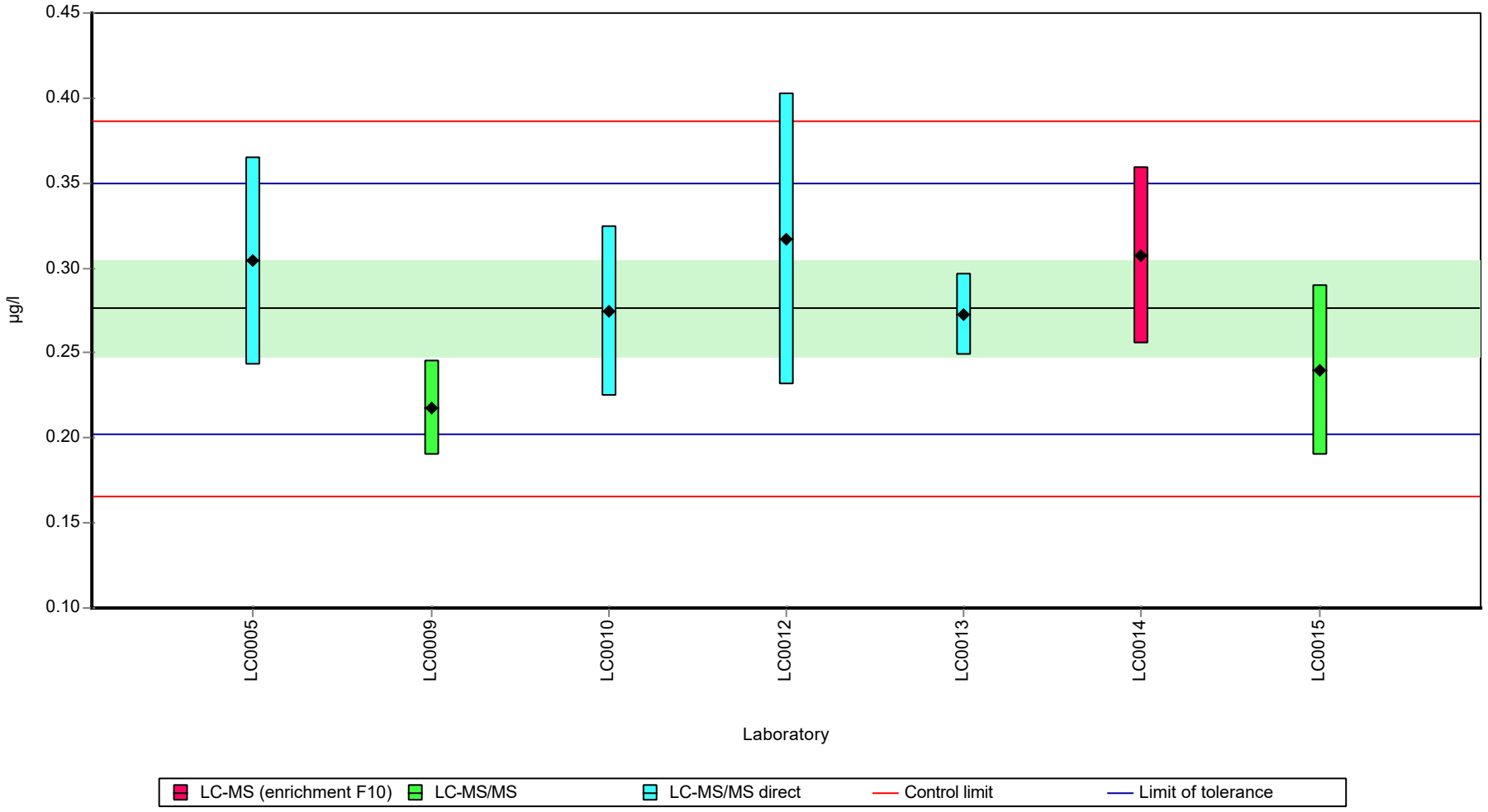
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | < 0.02 (LOQ) | - | - | - | FN |
| LC0004 | - | - | - | - | |
| LC0005 | 0.304 | 0.061 | 110 | 0.76 | |
| LC0006 | - | - | - | - | |
| LC0007 | - | - | - | - | |
| LC0008 | - | - | - | - | |
| LC0009 | 0.2175 | 0.028 | 78.8 | -1.59 | |
| LC0010 | 0.2744 | 0.05 | 99.4 | -0.05 | |
| LC0011 | - | - | - | - | |
| LC0012 | 0.317 | 0.086 | 115 | 1.11 | |
| LC0013 | 0.2728 | 0.024 | 98.8 | -0.09 | |
| LC0014 | 0.307 | 0.052 | 111 | 0.84 | |
| LC0015 | 0.24 | 0.05 | 86.9 | -0.98 | |
| LC0016 | - | - | - | - | |

**Characteristics of parameter**

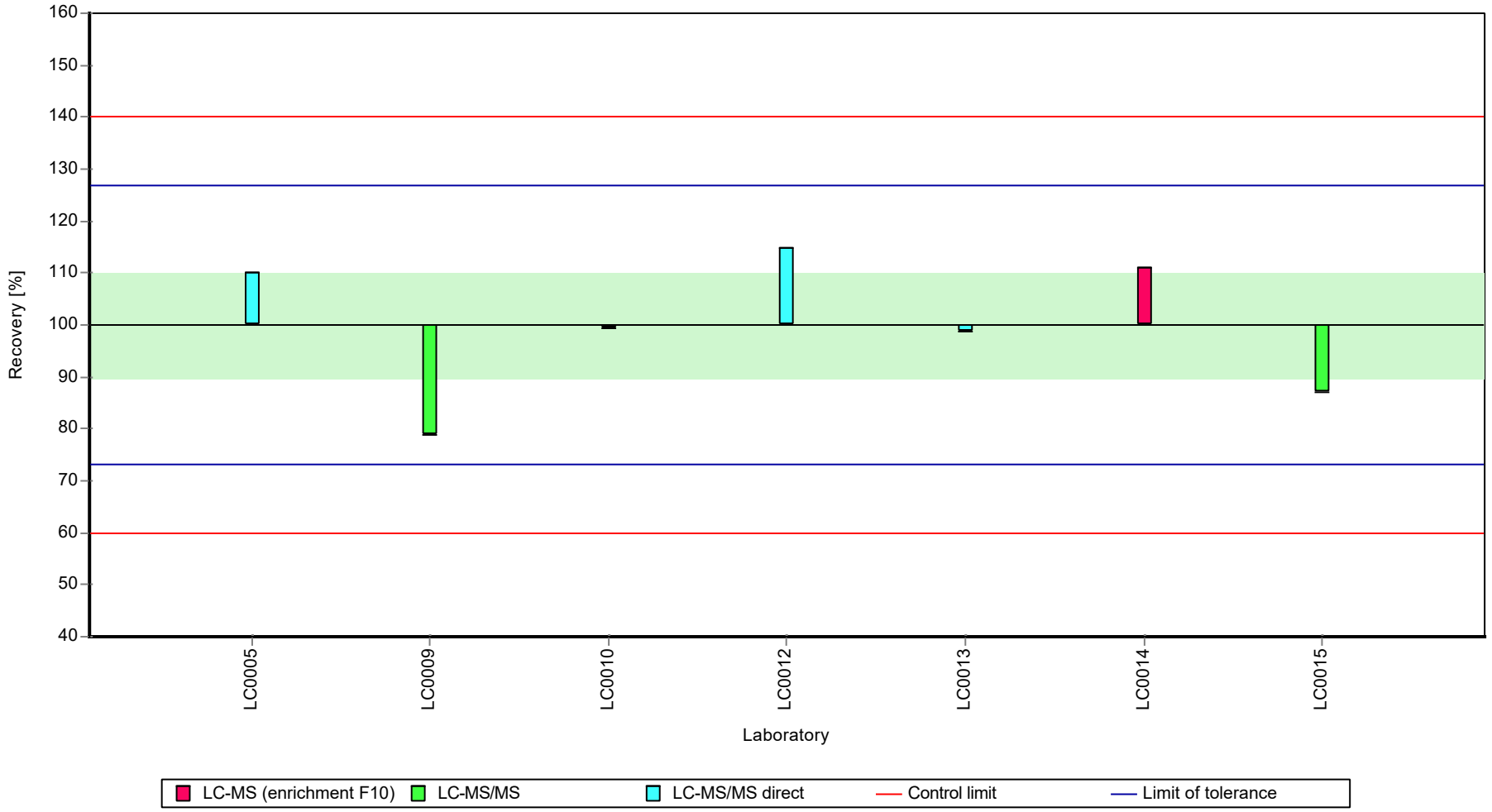
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.276 ± 0.0418 | 0.276 ± 0.0418 | µg/l |
| Minimum | 0.218 | 0.218 | µg/l |
| Maximum | 0.317 | 0.317 | µg/l |
| Standard deviation | 0.0369 | 0.0369 | µg/l |
| rel. standard deviation | 13.4 | 13.4 | % |
| n | 7 | 7 | - |

**Graphical presentation of results**

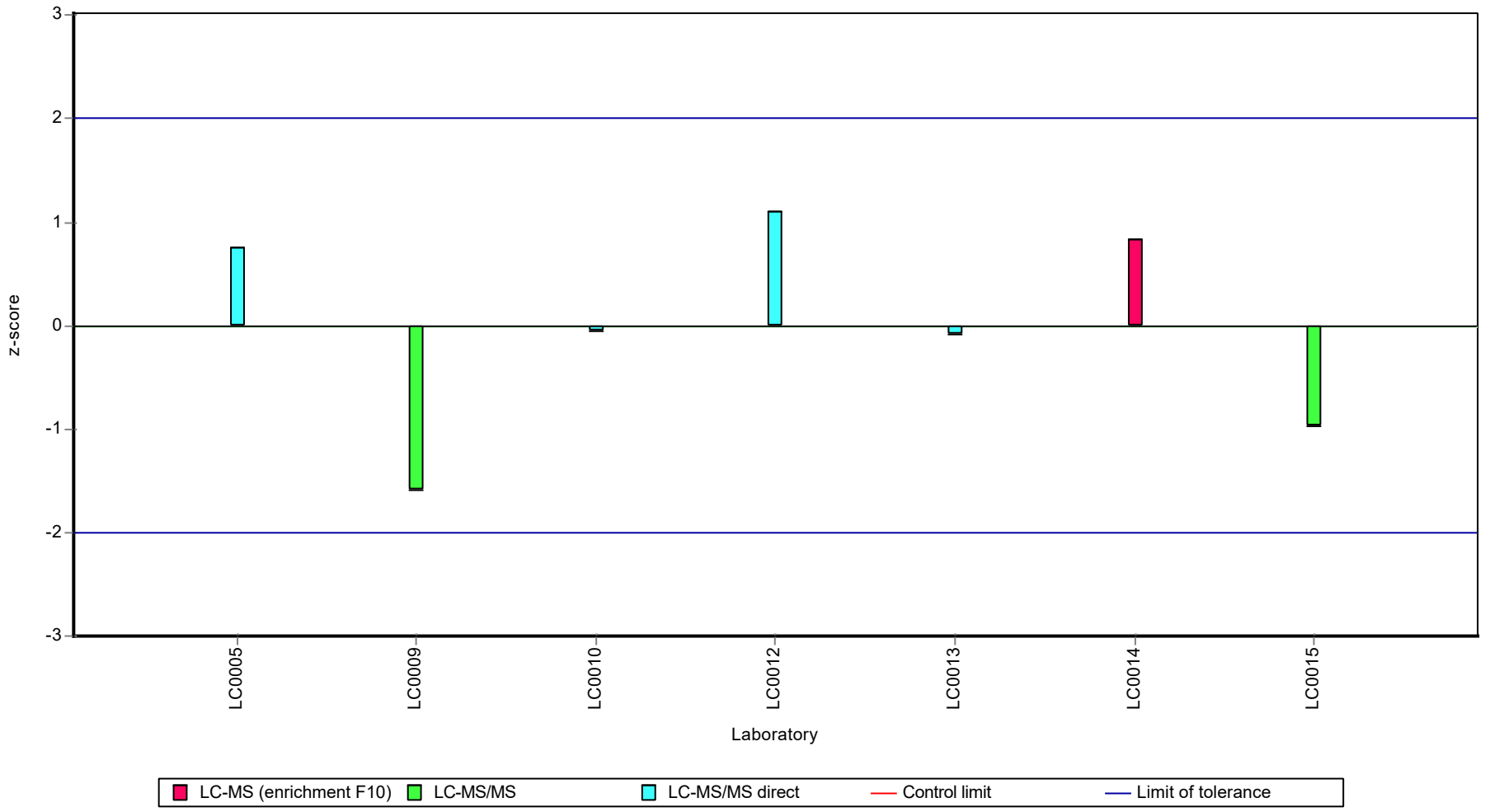
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0005
LC0009
LC0010
LC0012
LC0013
LC0014
LC0015
Laboratory
LC-MS (enrichment F10)
LC-MS/MS
LC-MS/MS direct
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 A

## Diazepam

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | - |
| Criterion | - |
| Minimum - Maximum | - |
| Control test value ± U (k=2) | <0,013 (LOD) |

| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | - | - | - | - | |
| LC0004 | < 0.03 (LOQ) | - | - | - | |
| LC0005 | - | - | - | - | |
| LC0006 | < 0.02 (LOQ) | - | - | - | |
| LC0007 | - | - | - | - | |
| LC0008 | < 0.025 (LOQ) | - | - | - | |
| LC0009 | - | - | - | - | |
| LC0010 | < 0.02 (LOQ) | - | - | - | |
| LC0011 | < 0.01 (LOQ) | - | - | - | |
| LC0012 | < 0.01 (LOQ) | - | - | - | |
| LC0013 | < 0.01 (LOQ) | - | - | - | |
| LC0014 | < 0.01 (LOQ) | - | - | - | |
| LC0015 | - | - | - | - | |
| LC0016 | - | - | - | - | |

**Characteristics of parameter**

| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± CI (99%) | - | - | µg/l |
| Minimum | - | - | µg/l |
| Maximum | - | - | µg/l |
| Standard deviation | - | - | µg/l |
| rel. standard deviation | - | - | % |
| n | 0 | 0 | - |

# Parameter oriented report

## AZ7 B

## Diazepam

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.382 ± 0.0467 |
| Criterion | 0.0618 (16 %) |
| Minimum - Maximum | 0.284 - 0.46 |
| Control test value ± U (k=2) | 0.427 ± 0.064 |

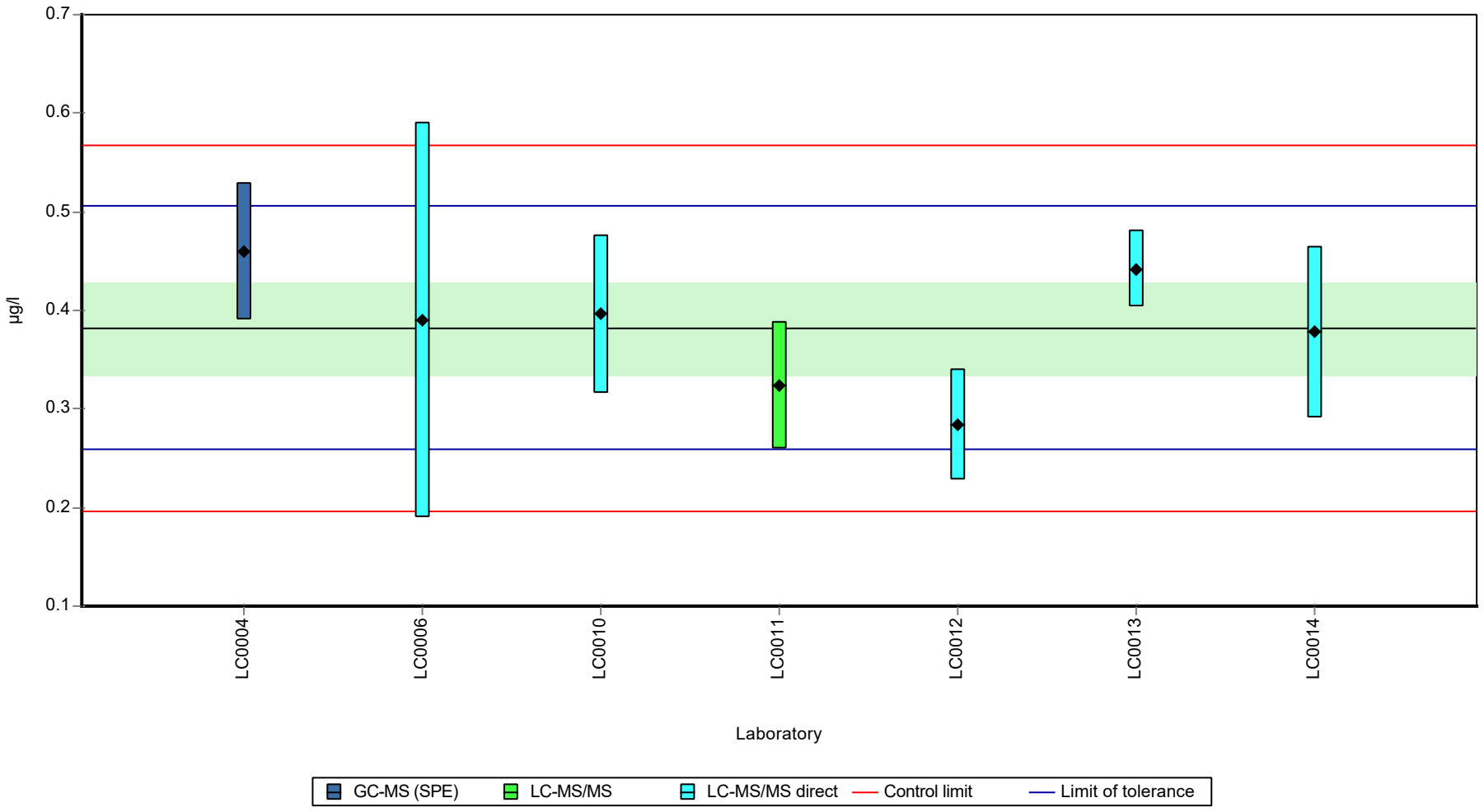
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | - | - | - | - | |
| LC0004 | 0.46 | 0.07 | 120 | 1.26 | |
| LC0005 | - | - | - | - | |
| LC0006 | 0.39 | 0.2 | 102 | 0.13 | |
| LC0007 | - | - | - | - | |
| LC0008 | - | - | - | - | |
| LC0009 | - | - | - | - | |
| LC0010 | 0.3963 | 0.08 | 104 | 0.23 | |
| LC0011 | 0.324 | 0.065 | 84.8 | -0.94 | |
| LC0012 | 0.284 | 0.057 | 74.3 | -1.59 | |
| LC0013 | 0.442 | 0.039 | 116 | 0.97 | |
| LC0014 | 0.378 | 0.087 | 98.9 | -0.07 | |
| LC0015 | - | - | - | - | |
| LC0016 | - | - | - | - | |

**Characteristics of parameter**

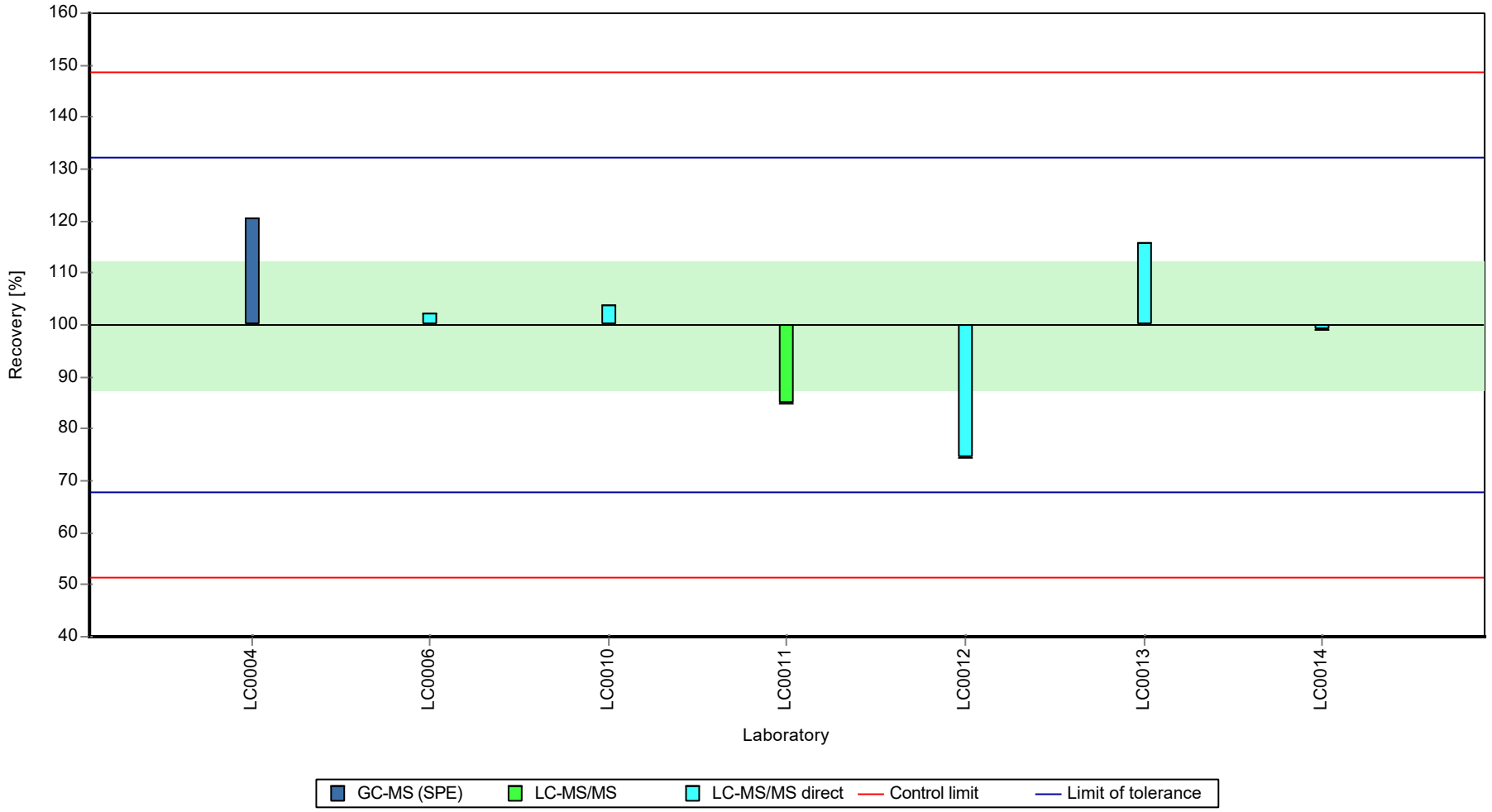
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.382 ± 0.0701 | 0.382 ± 0.0701 | µg/l |
| Minimum | 0.284 | 0.284 | µg/l |
| Maximum | 0.46 | 0.46 | µg/l |
| Standard deviation | 0.0618 | 0.0618 | µg/l |
| rel. standard deviation | 16.2 | 16.2 | % |
| n | 7 | 7 | - |

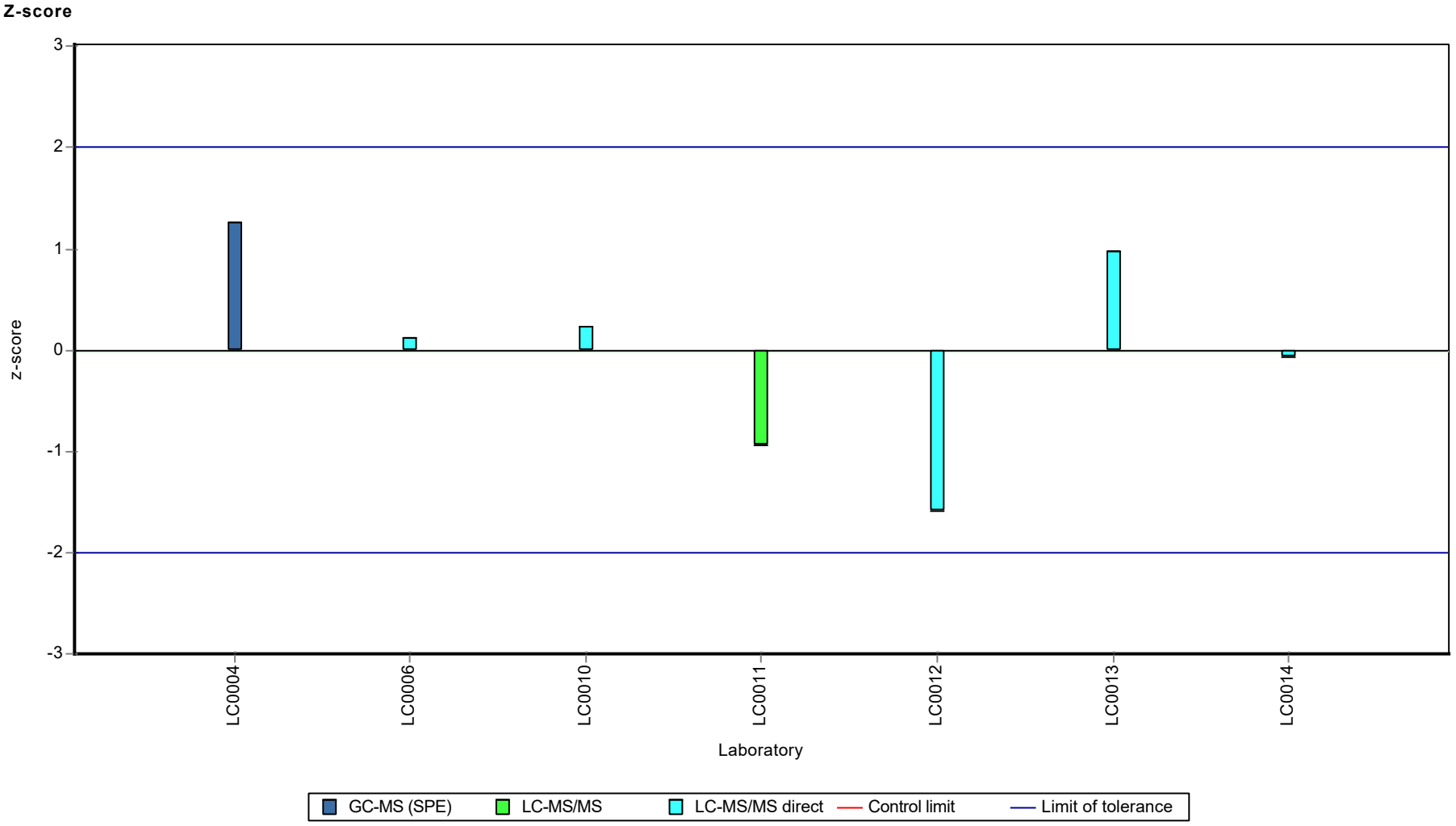
**Graphical presentation of results**

**Results**



**Recovery rate**




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0004
LC0006
LC0010
LC0011
LC0012
LC0013
LC0014
Laboratory
GC-MS (SPE)
LC-MS/MS
LC-MS/MS direct
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 A

## Diclofenac

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.229 ± 0.0172 |
| Criterion | 0.0321 (14 %) |
| Minimum - Maximum | 0.194 - 0.302 |
| Control test value ± U (k=2) | 0.277 ± 0.0416 |

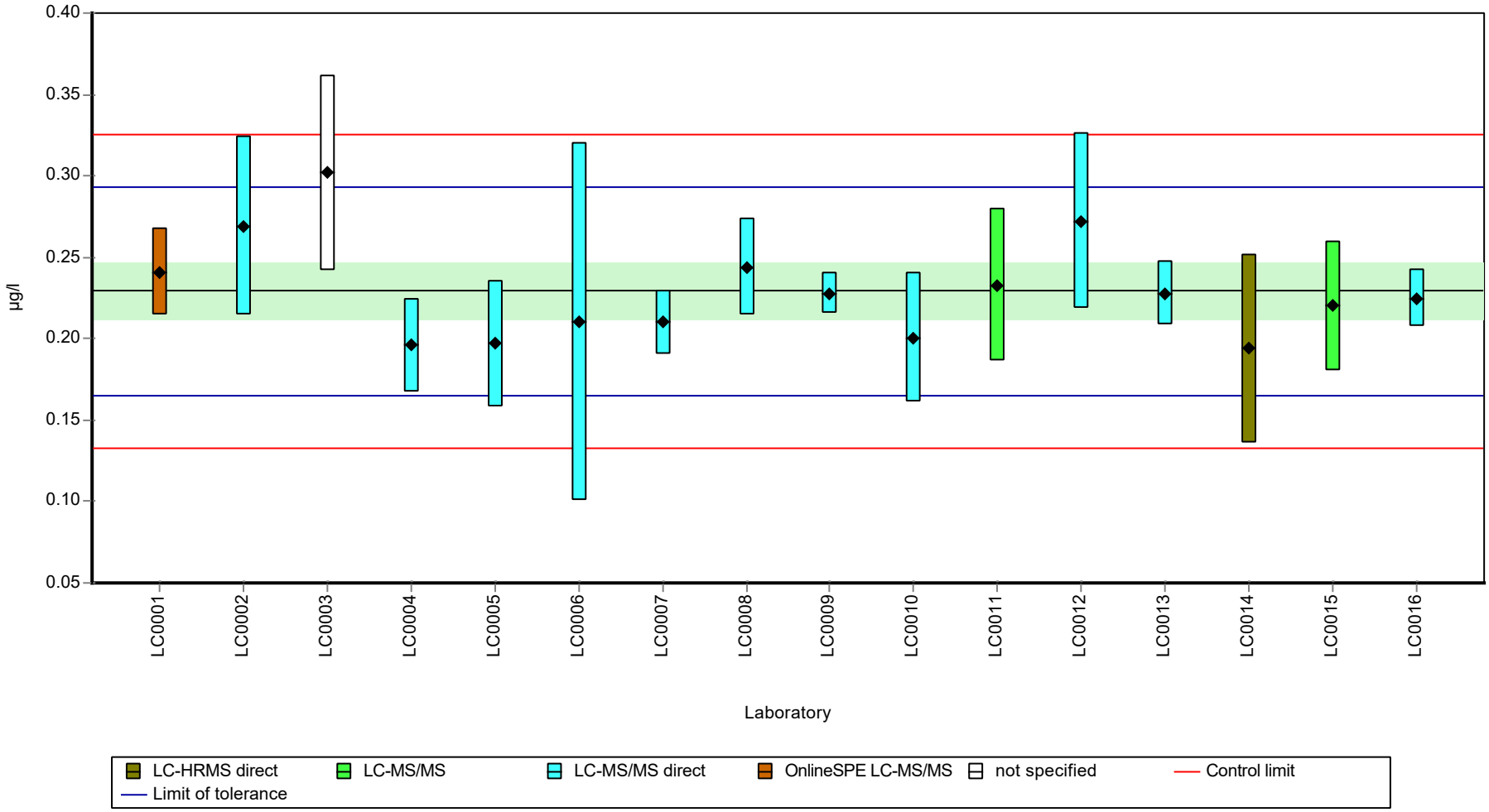
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | 0.241 | 0.027 | 105 | 0.37 | |
| LC0002 | 0.269 | 0.055 | 117 | 1.24 | |
| LC0003 | 0.302 | 0.06 | 132 | 2.27 | |
| LC0004 | 0.196 | 0.029 | 85.5 | -1.03 | |
| LC0005 | 0.197 | 0.039 | 86 | -1 | |
| LC0006 | 0.21 | 0.11 | 91.7 | -0.6 | |
| LC0007 | 0.21 | 0.02 | 91.7 | -0.6 | |
| LC0008 | 0.244 | 0.03 | 106 | 0.46 | |
| LC0009 | 0.228 | 0.013 | 99.5 | -0.03 | |
| LC0010 | 0.2005 | 0.04 | 87.5 | -0.89 | |
| LC0011 | 0.233 | 0.047 | 102 | 0.12 | |
| LC0012 | 0.272 | 0.054 | 119 | 1.34 | |
| LC0013 | 0.228 | 0.02 | 99.5 | -0.03 | |
| LC0014 | 0.194 | 0.058 | 84.7 | -1.09 | |
| LC0015 | 0.22 | 0.04 | 96 | -0.28 | |
| LC0016 | 0.225 | 0.018 | 98.2 | -0.13 | |

**Characteristics of parameter**

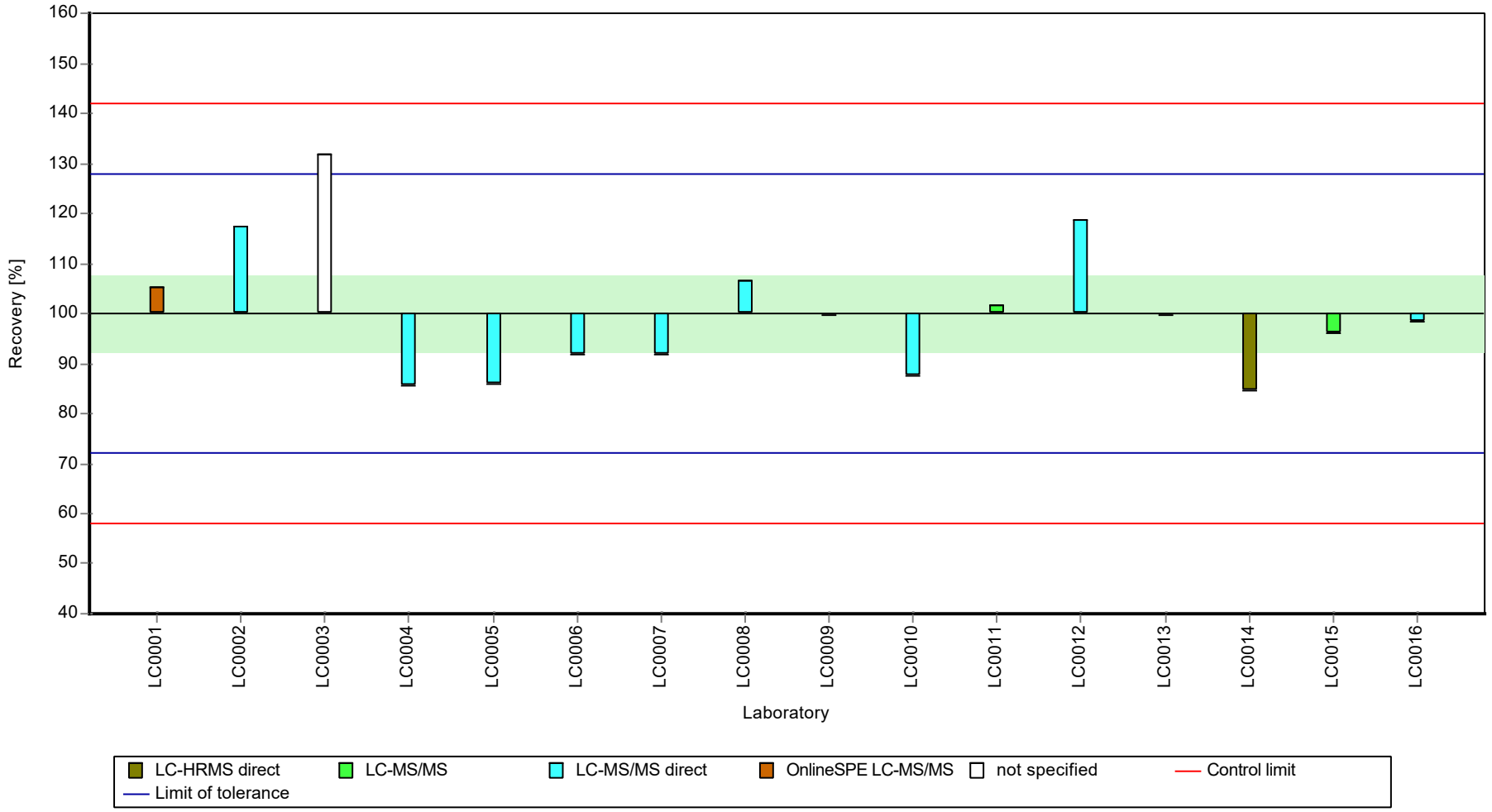
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± CI (99%) | 0.229 ± 0.023 | 0.229 ± 0.023 | µg/l |
| Minimum | 0.194 | 0.194 | µg/l |
| Maximum | 0.302 | 0.302 | µg/l |
| Standard deviation | 0.0307 | 0.0307 | µg/l |
| rel. standard deviation | 13.4 | 13.4 | % |
| n | 16 | 16 | - |

**Graphical presentation of results**

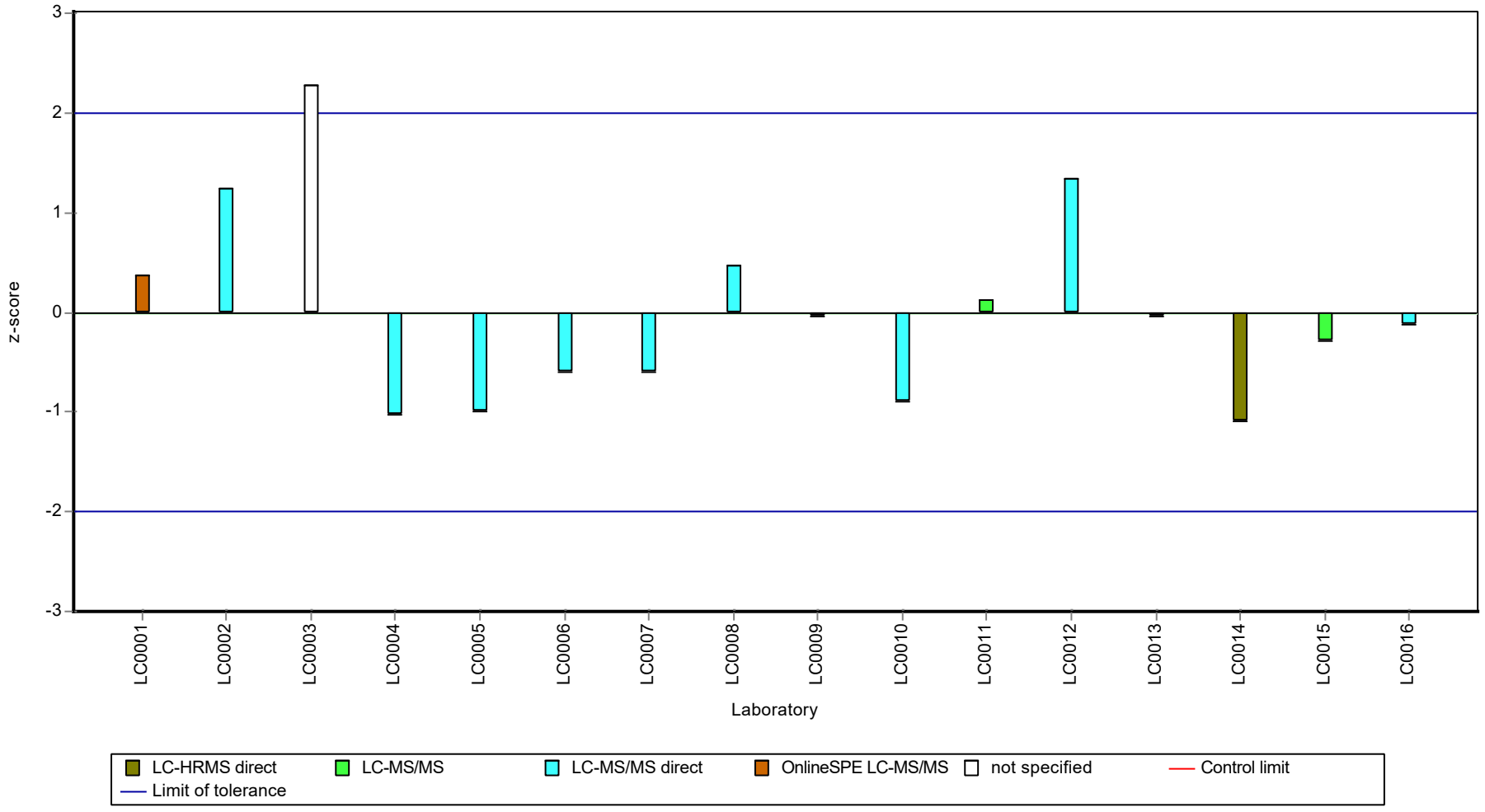
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
Laboratory
LC-HRMS direct
LC-MS/MS
LC-MS/MS direct
OnlineSPE LC-MS/MS
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 B

## Diclofenac

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 2.84 ± 0.103 |
| Criterion | 0.398 (14 %) |
| Minimum - Maximum | 2.57 - 3.06 |
| Control test value ± U (k=2) | - |

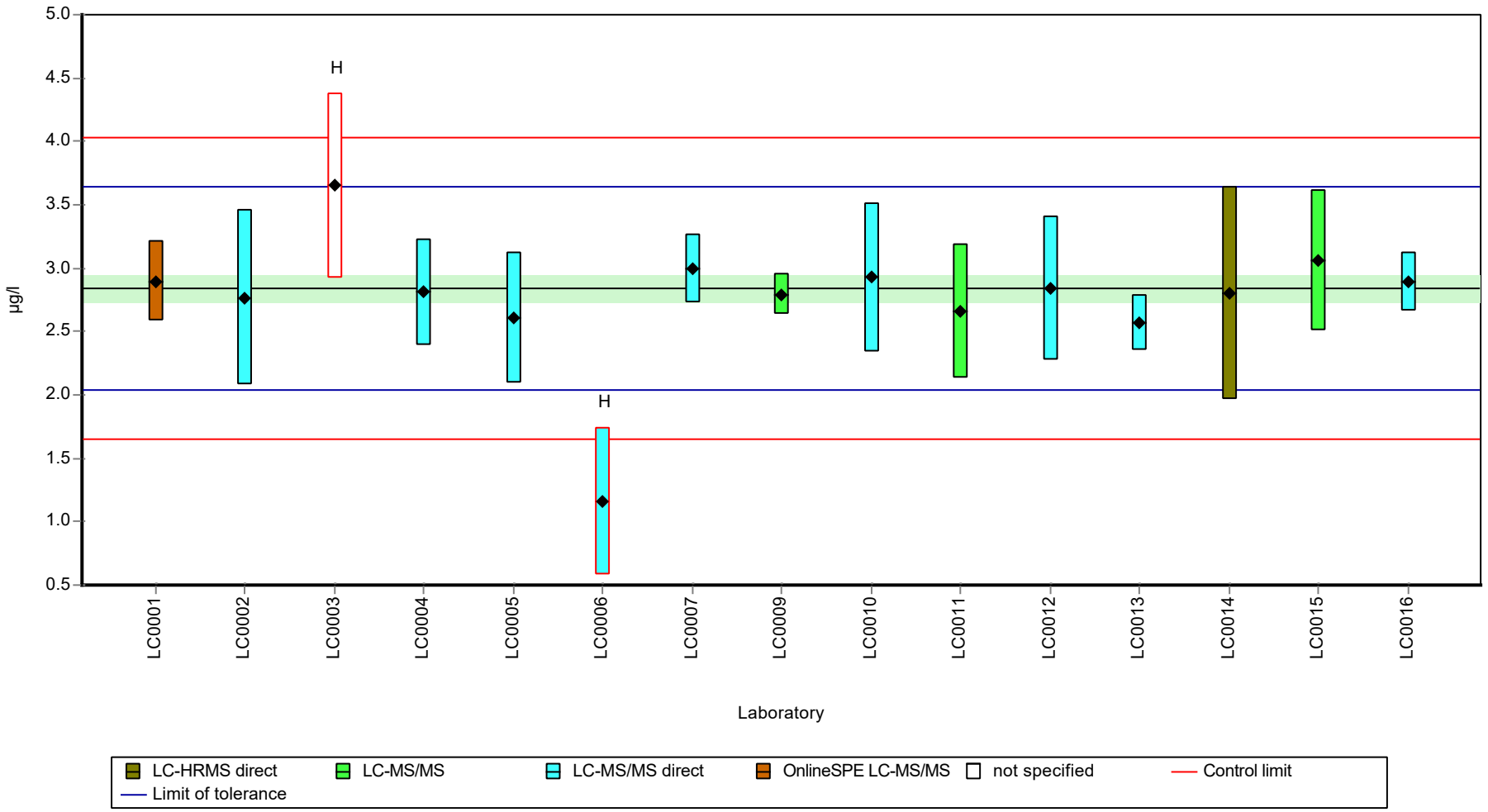
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | 2.896 | 0.319 | 102 | 0.14 | |
| LC0002 | 2.768 | 0.69 | 97.4 | -0.18 | |
| LC0003 | 3.65 | 0.73 | 128 | 2.04 | H |
| LC0004 | 2.81 | 0.422 | 98.9 | -0.08 | |
| LC0005 | 2.61 | 0.52 | 91.9 | -0.58 | |
| LC0006 | 1.16 | 0.58 | 40.8 | -4.23 | H |
| LC0007 | 3 | 0.27 | 106 | 0.4 | |
| LC0008 | - | - | - | - | |
| LC0009 | 2.795 | 0.16 | 98.4 | -0.12 | |
| LC0010 | 2.925 | 0.59 | 103 | 0.21 | |
| LC0011 | 2.66 | 0.531 | 93.6 | -0.45 | |
| LC0012 | 2.844 | 0.569 | 100 | 0.01 | |
| LC0013 | 2.57 | 0.22 | 90.5 | -0.68 | |
| LC0014 | 2.8 | 0.84 | 98.6 | -0.1 | |
| LC0015 | 3.06 | 0.55 | 108 | 0.55 | |
| LC0016 | 2.89 | 0.23 | 102 | 0.12 | |

**Characteristics of parameter**

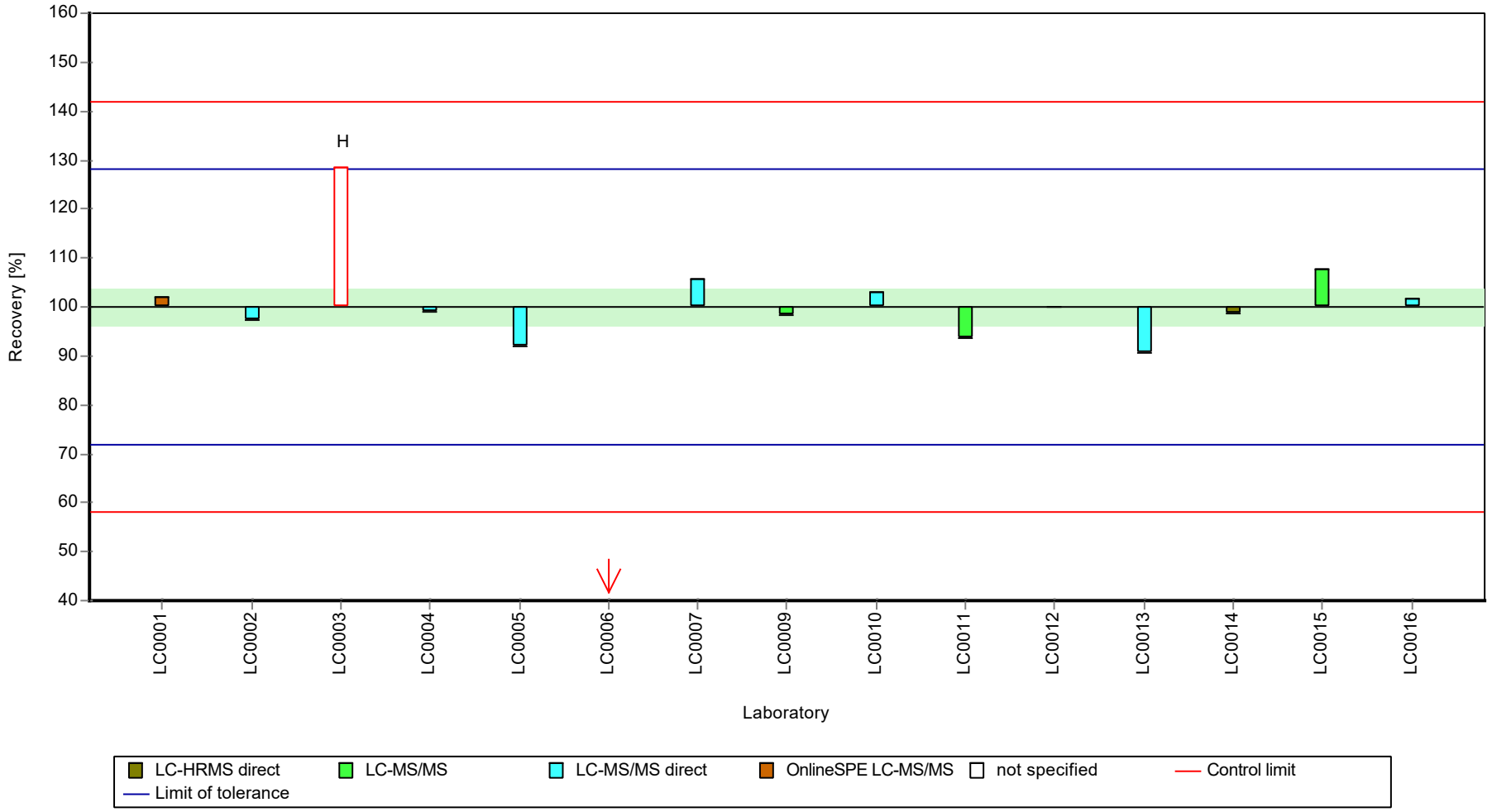
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 2.76 ± 0.395 | 2.82 ± 0.12 | µg/l |
| Minimum | 1.16 | 2.57 | µg/l |
| Maximum | 3.65 | 3.06 | µg/l |
| Standard deviation | 0.51 | 0.144 | µg/l |
| rel. standard deviation | 18.5 | 5.1 | % |
| n | 15 | 13 | - |

**Graphical presentation of results**

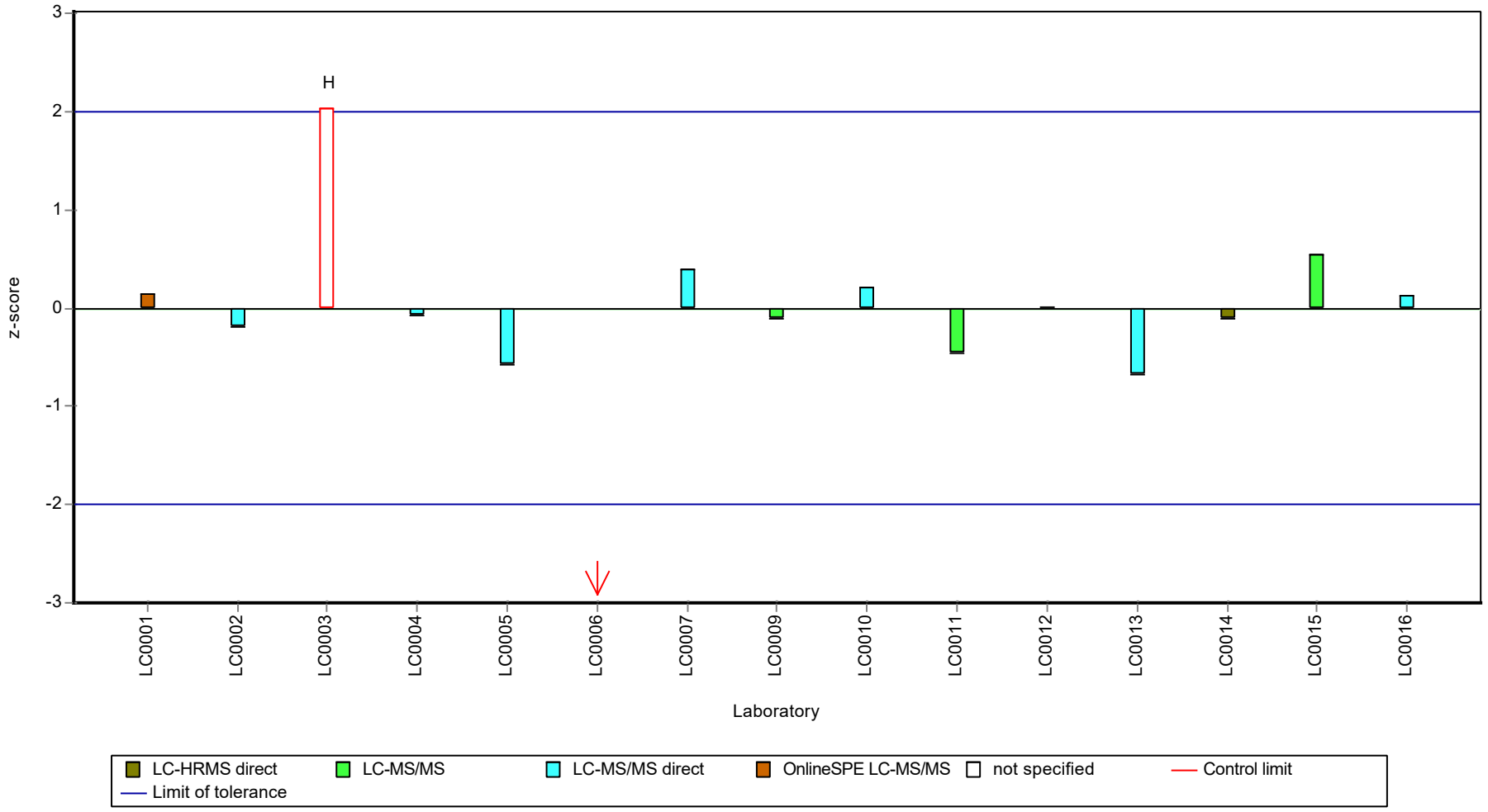
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
H
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
Laboratory
LC-HRMS direct
LC-MS/MS
LC-MS/MS direct
OnlineSPE LC-MS/MS
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 A

## Ibuprofen

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.272 ± 0.0143 |
| Criterion | 0.0226 (8.3 %) |
| Minimum - Maximum | 0.242 - 0.309 |
| Control test value ± U (k=2) | 0.302 ± 0.0454 |

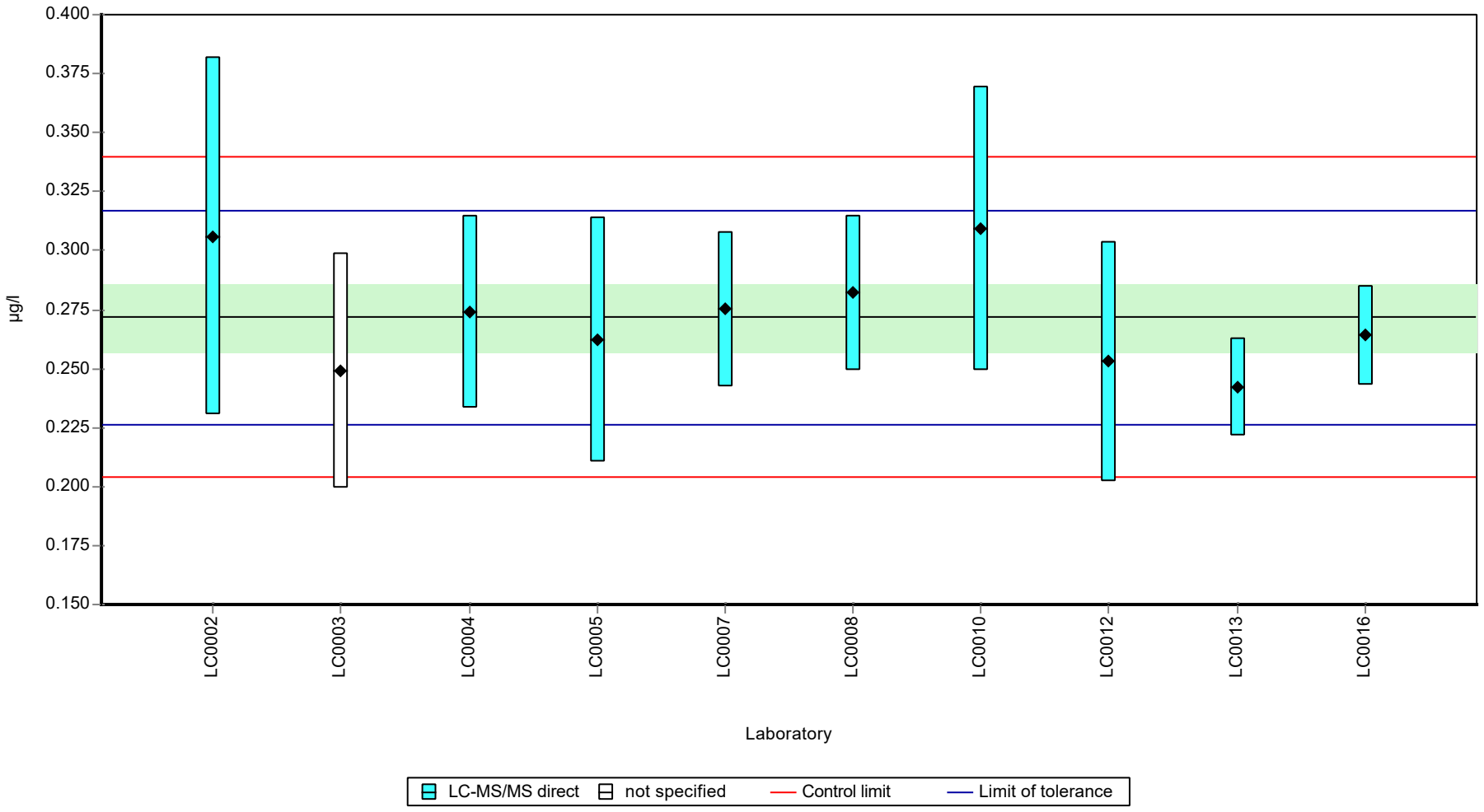
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | 0.306 | 0.076 | 113 | 1.52 | |
| LC0003 | 0.249 | 0.05 | 91.7 | -1 | |
| LC0004 | 0.274 | 0.041 | 101 | 0.1 | |
| LC0005 | 0.262 | 0.052 | 96.5 | -0.42 | |
| LC0006 | < 10 (LOQ) | - | - | - | |
| LC0007 | 0.275 | 0.033 | 101 | 0.15 | |
| LC0008 | 0.282 | 0.033 | 104 | 0.46 | |
| LC0009 | - | - | - | - | |
| LC0010 | 0.3093 | 0.06 | 114 | 1.66 | |
| LC0011 | - | - | - | - | |
| LC0012 | 0.253 | 0.051 | 93.1 | -0.82 | |
| LC0013 | 0.242 | 0.021 | 89.1 | -1.31 | |
| LC0014 | - | - | - | - | |
| LC0015 | - | - | - | - | |
| LC0016 | 0.264 | 0.021 | 97.2 | -0.34 | |

**Characteristics of parameter**

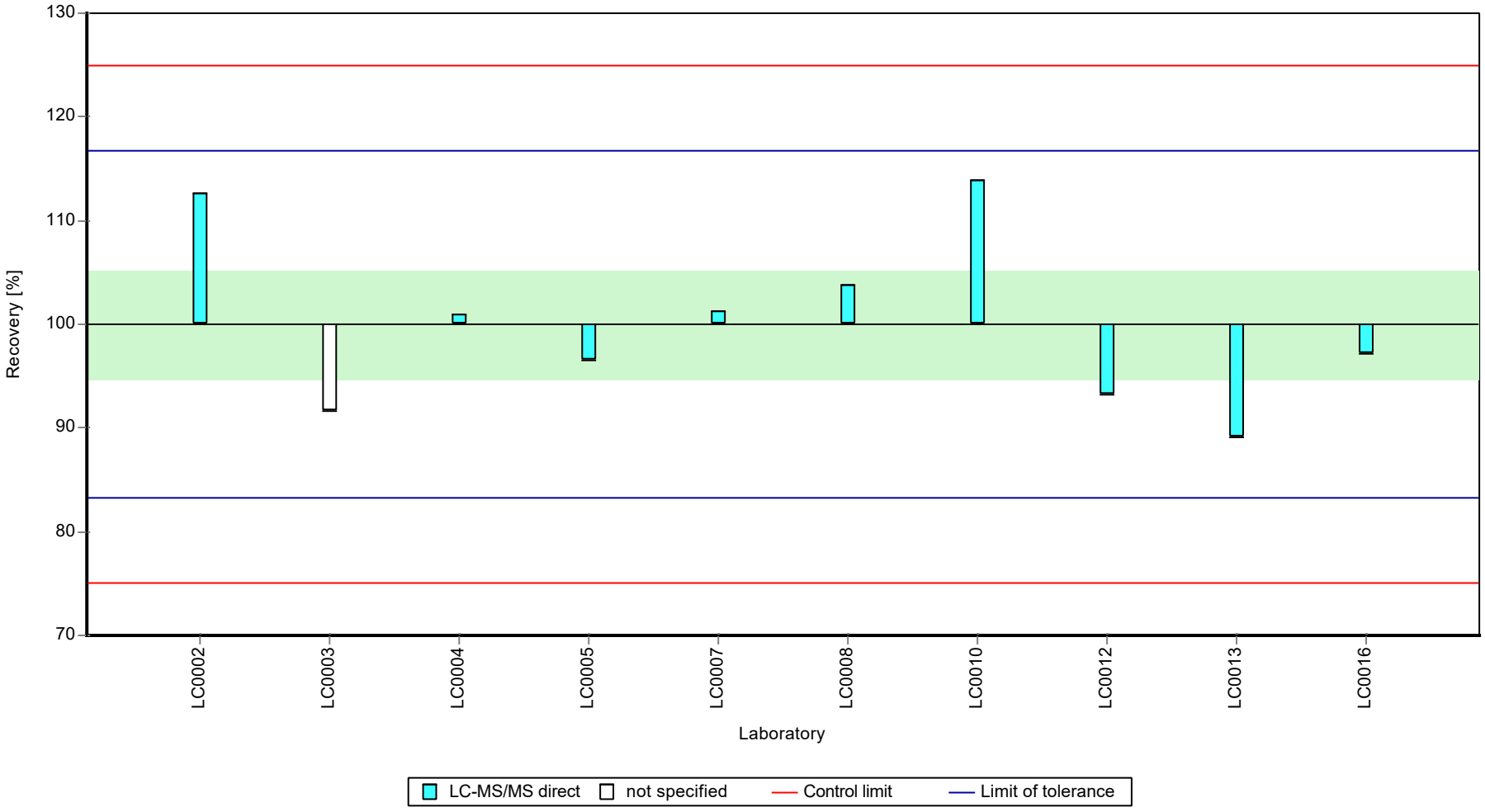
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± CI (99%) | 0.272 ± 0.0215 | 0.272 ± 0.0215 | µg/l |
| Minimum | 0.242 | 0.242 | µg/l |
| Maximum | 0.309 | 0.309 | µg/l |
| Standard deviation | 0.0226 | 0.0226 | µg/l |
| rel. standard deviation | 8.33 | 8.33 | % |
| n | 10 | 10 | - |

**Graphical presentation of results**

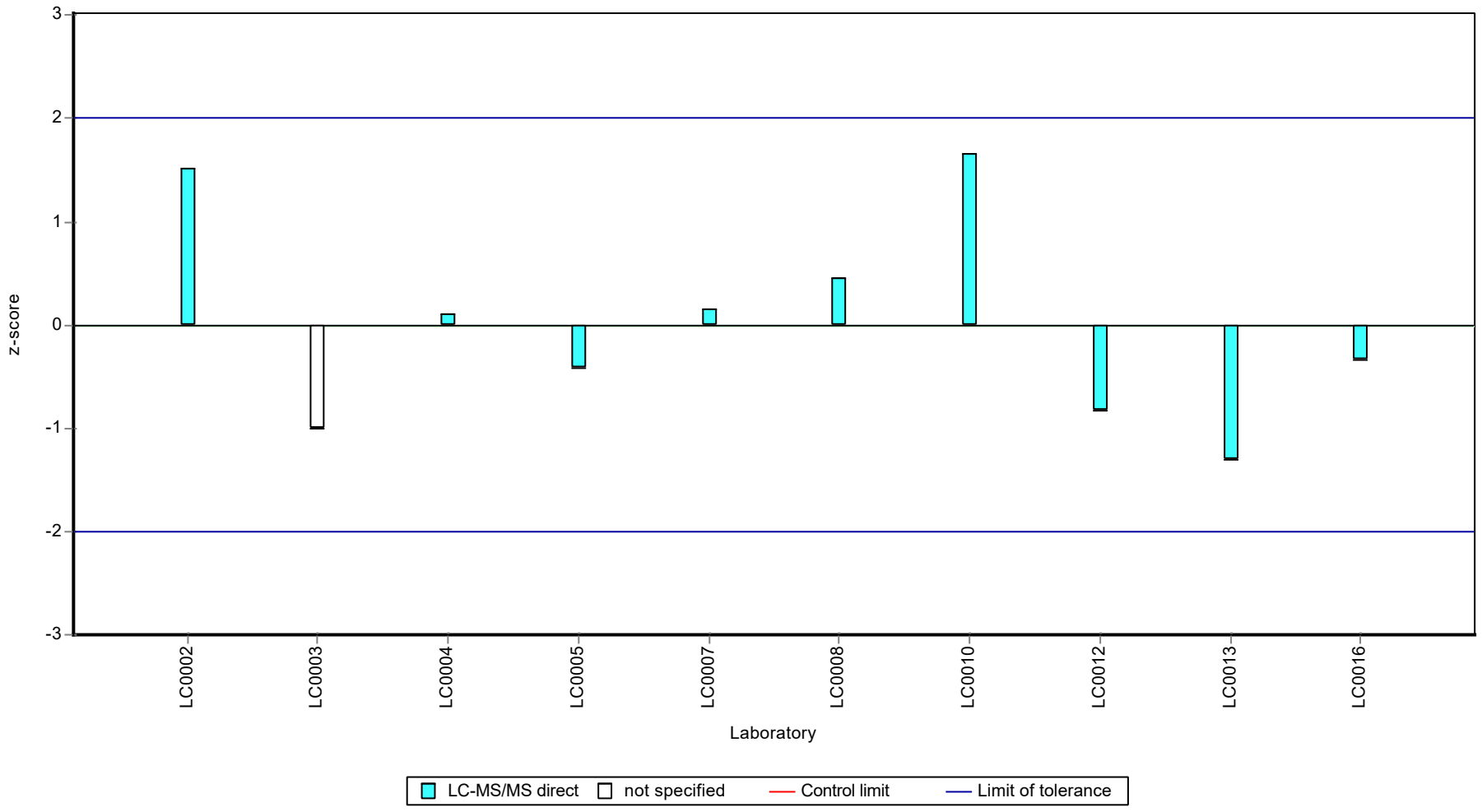
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0002
LC0003
LC0004
LC0005
LC0007
LC0008
LC0010
LC0012
LC0013
LC0016
Laboratory
LC-MS/MS direct
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 B

## Ibuprofen

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.0835 ± 0.00942 |
| Criterion | 0.0117 (14 %) |
| Minimum - Maximum | 0.074 - 0.105 |
| Control test value ± U (k=2) | 0.101 ± 0.0151 |

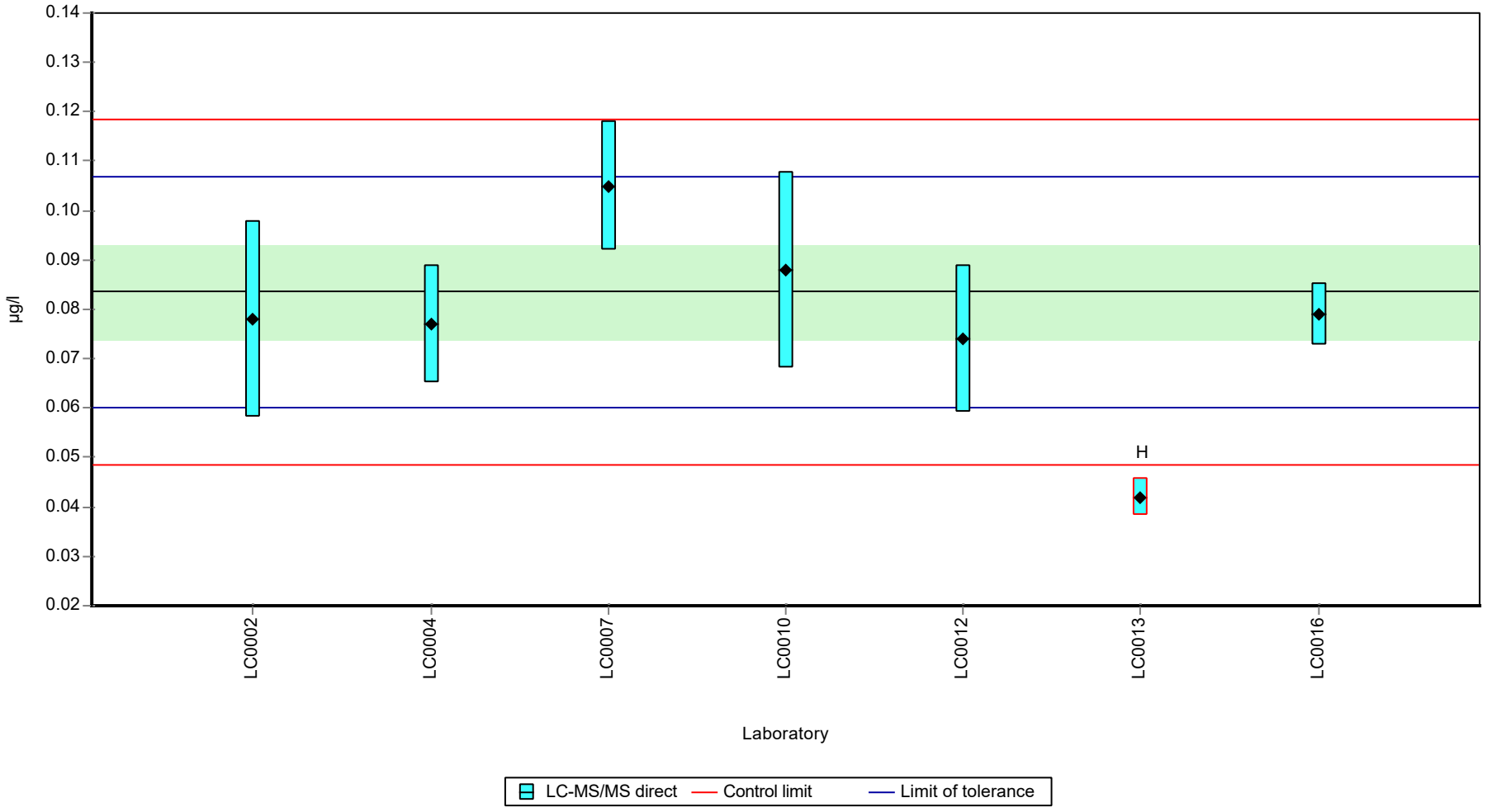
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | 0.078 | 0.02 | 93.4 | -0.47 | |
| LC0003 | < 0.05 (LOQ) | - | - | - | |
| LC0004 | 0.077 | 0.012 | 92.2 | -0.56 | |
| LC0005 | < 0.02 (LOQ) | - | - | - | |
| LC0006 | < 10 (LOQ) | - | - | - | |
| LC0007 | 0.105 | 0.013 | 126 | 1.84 | |
| LC0008 | - | - | - | - | |
| LC0009 | - | - | - | - | |
| LC0010 | 0.088 | 0.02 | 105 | 0.39 | |
| LC0011 | - | - | - | - | |
| LC0012 | 0.074 | 0.015 | 88.6 | -0.81 | |
| LC0013 | 0.042 | 0.0037 | 50.3 | -3.55 | H |
| LC0014 | - | - | - | - | |
| LC0015 | - | - | - | - | |
| LC0016 | 0.079 | 0.0063 | 94.6 | -0.39 | |

**Characteristics of parameter**

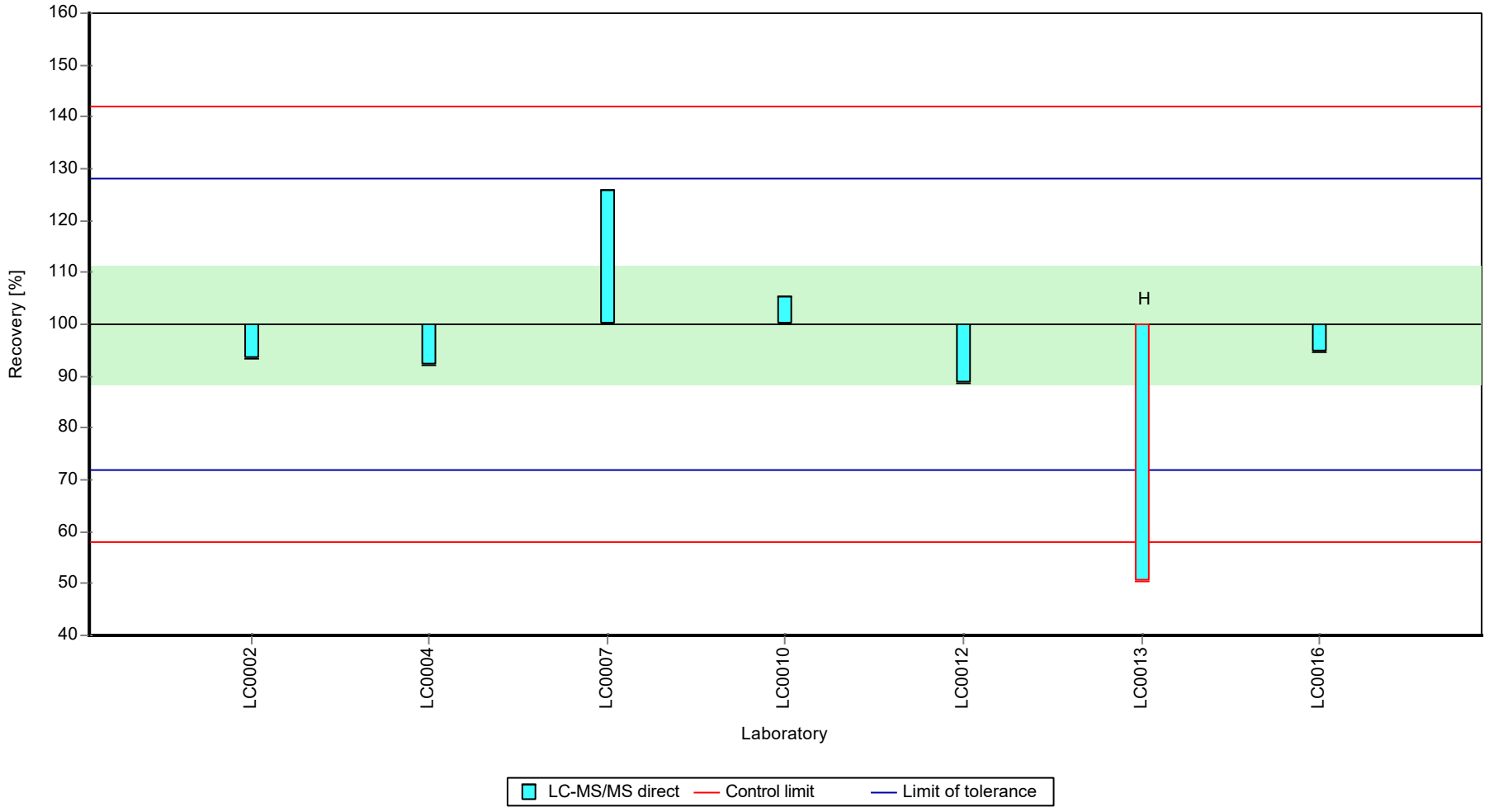
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.0776 ± 0.0214 | 0.0835 ± 0.0141 | µg/l |
| Minimum | 0.042 | 0.074 | µg/l |
| Maximum | 0.105 | 0.105 | µg/l |
| Standard deviation | 0.0189 | 0.0115 | µg/l |
| rel. standard deviation | 24.4 | 13.8 | % |
| n | 7 | 6 | - |

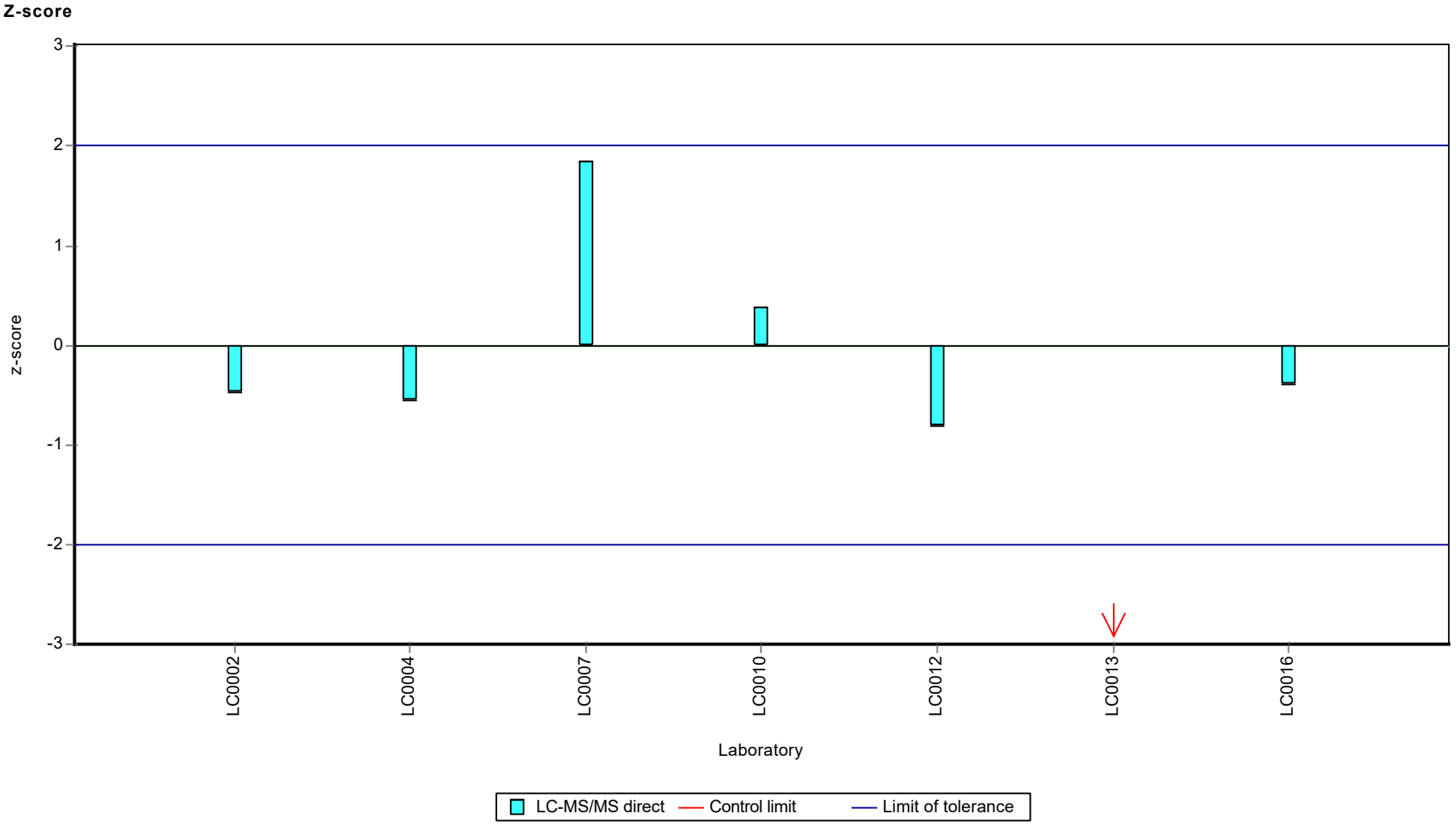
**Graphical presentation of results**

**Results**



**Recovery rate**




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0002
LC0004
LC0007
LC0010
LC0012
LC0013
LC0016
Laboratory
LC-MS/MS direct
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 A

## Iopamidol

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.314 ± 0.0414 |
| Criterion | 0.0687 (22 %) |
| Minimum - Maximum | 0.199 - 0.421 |
| Control test value ± U (k=2) | 0.336 ± 0.0504 |

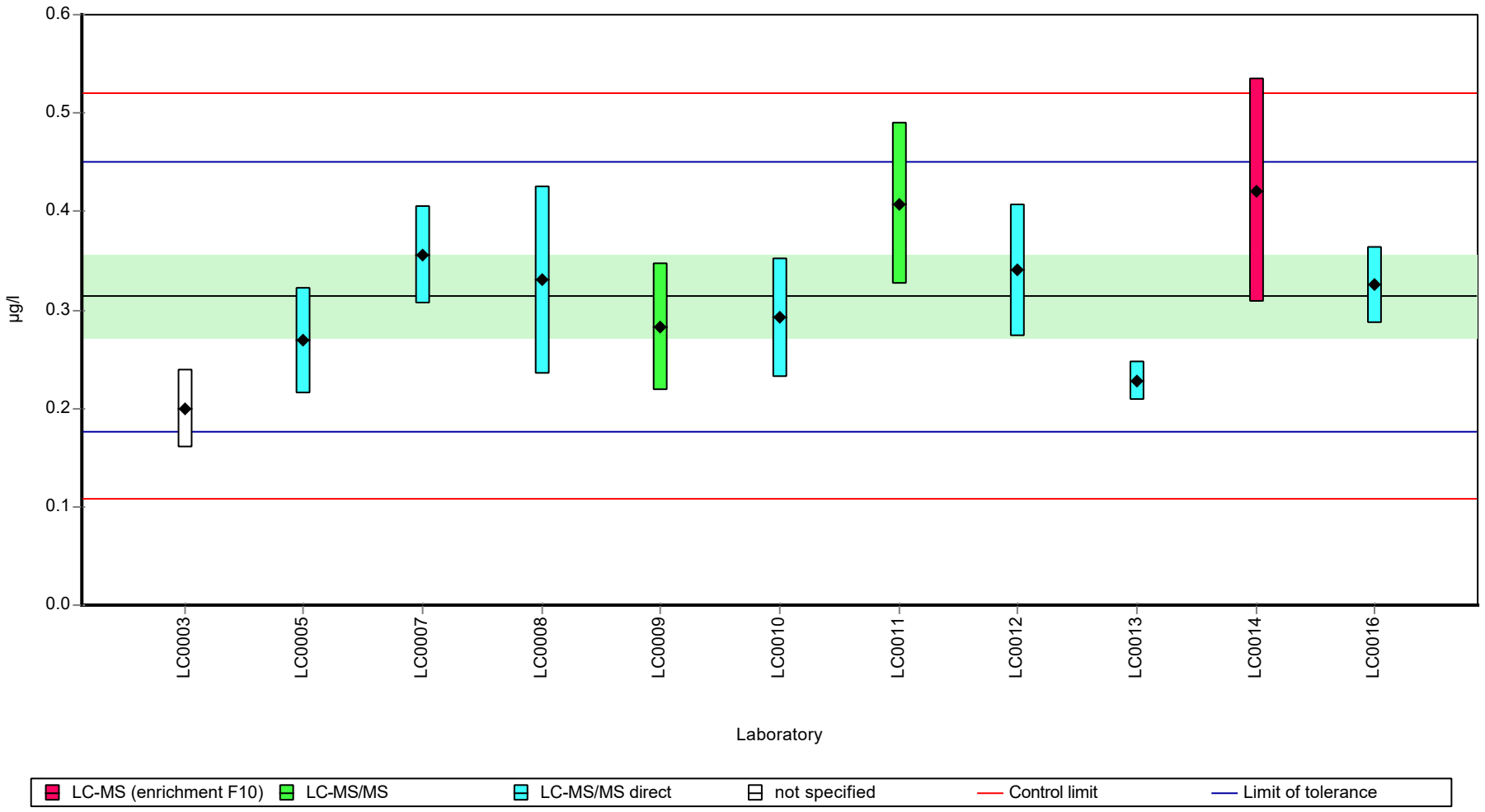
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | 0.199 | 0.04 | 63.5 | -1.67 | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.269 | 0.054 | 85.8 | -0.65 | |
| LC0006 | - | - | - | - | |
| LC0007 | 0.355 | 0.05 | 113 | 0.6 | |
| LC0008 | 0.33 | 0.096 | 105 | 0.24 | |
| LC0009 | 0.28199 | 0.065 | 89.9 | -0.46 | |
| LC0010 | 0.2918 | 0.06 | 93.1 | -0.32 | |
| LC0011 | 0.408 | 0.082 | 130 | 1.38 | |
| LC0012 | 0.34 | 0.068 | 108 | 0.39 | |
| LC0013 | 0.228 | 0.02 | 72.7 | -1.25 | |
| LC0014 | 0.421 | 0.114 | 134 | 1.56 | |
| LC0015 | - | - | - | - | |
| LC0016 | 0.325 | 0.039 | 104 | 0.17 | |

**Characteristics of parameter**

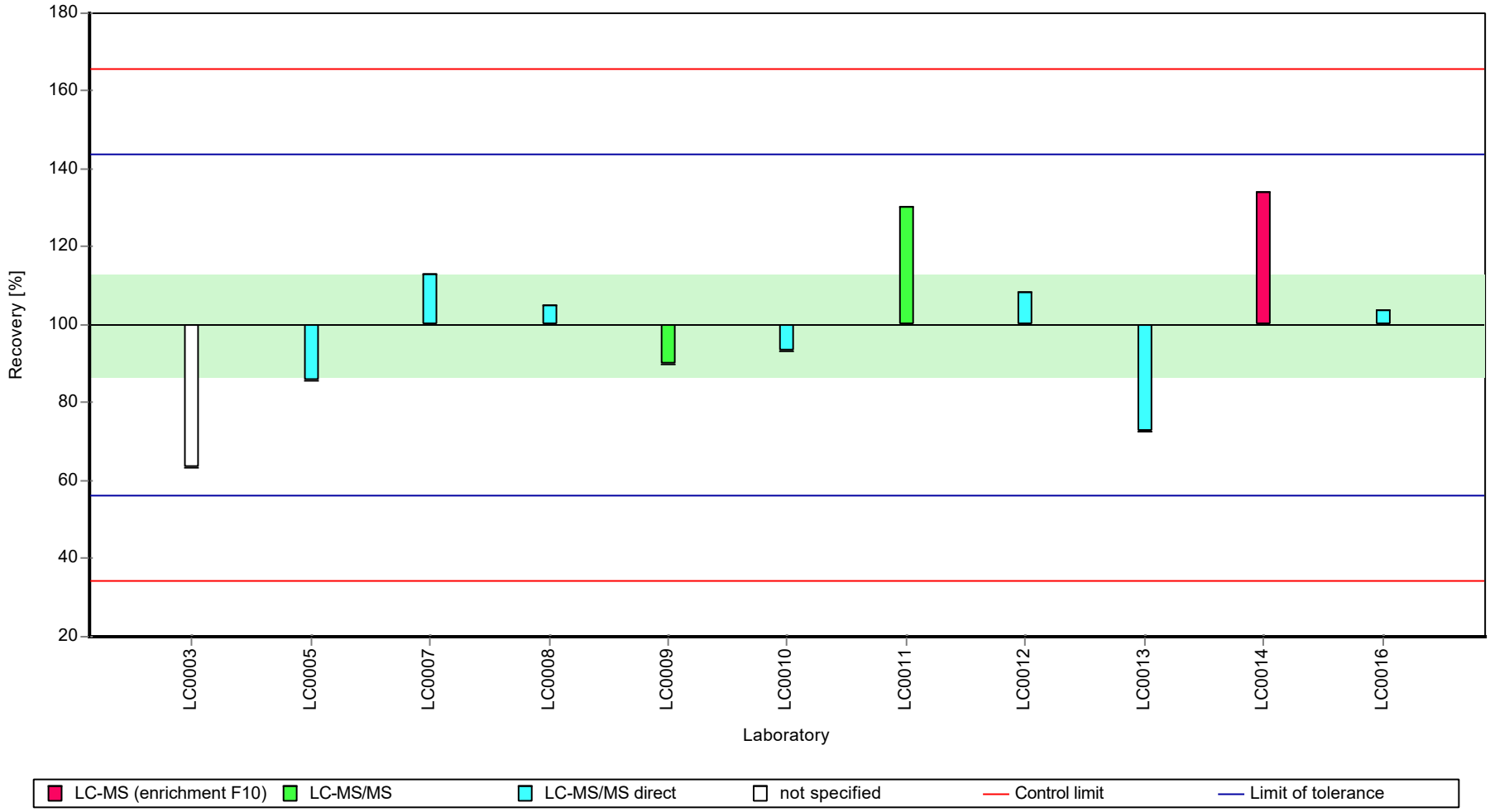
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± CI (99%) | 0.314 ± 0.0621 | 0.314 ± 0.0621 | µg/l |
| Minimum | 0.199 | 0.199 | µg/l |
| Maximum | 0.421 | 0.421 | µg/l |
| Standard deviation | 0.0687 | 0.0687 | µg/l |
| rel. standard deviation | 21.9 | 21.9 | % |
| n | 11 | 11 | - |

**Graphical presentation of results**

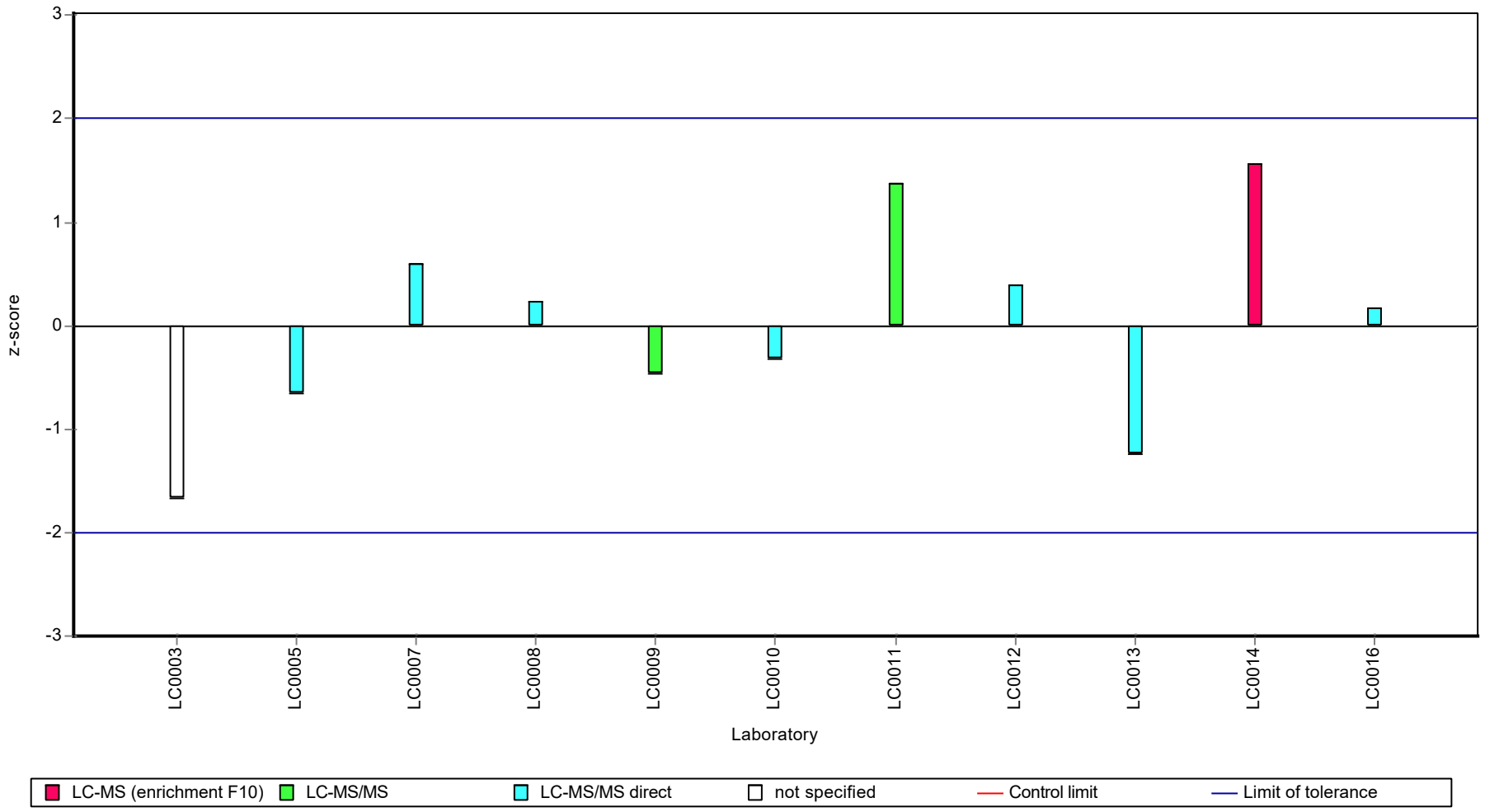
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0003
LC0005
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0016
Laboratory
LC-MS (enrichment F10)
LC-MS/MS
LC-MS/MS direct
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 B

## Iopamidol

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 32.8 ± 7.95 |
| Criterion | 11.3 (35 %) |
| Minimum - Maximum | 11.4 - 45.2 |
| Control test value ± U (k=2) | 38.4 ± 5.76 |

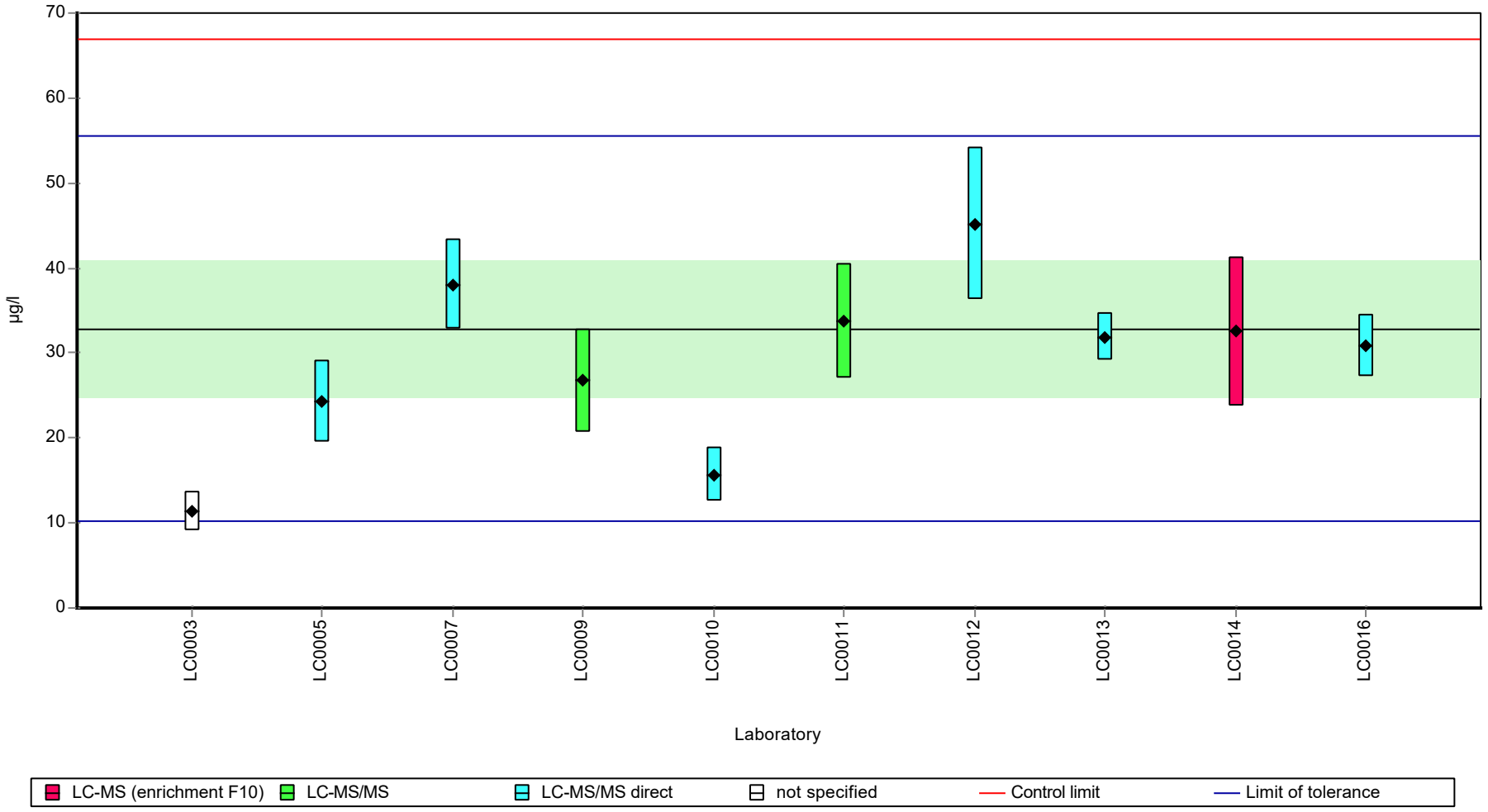
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | 11.4 | 2.29 | 34.7 | -1.89 | |
| LC0004 | - | - | - | - | |
| LC0005 | 24.3 | 4.9 | 74 | -0.75 | |
| LC0006 | - | - | - | - | |
| LC0007 | 38 | 5.3 | 116 | 0.46 | |
| LC0008 | - | - | - | - | |
| LC0009 | 26.7169 | 6.14 | 81.3 | -0.54 | |
| LC0010 | 15.715 | 3.14 | 47.8 | -1.51 | |
| LC0011 | 33.7 | 6.73 | 103 | 0.08 | |
| LC0012 | 45.2 | 9.04 | 138 | 1.09 | |
| LC0013 | 31.9 | 2.79 | 97.1 | -0.08 | |
| LC0014 | 32.55 | 8.789 | 99.1 | -0.03 | |
| LC0015 | - | - | - | - | |
| LC0016 | 30.8 | 3.7 | 93.8 | -0.18 | |

**Characteristics of parameter**

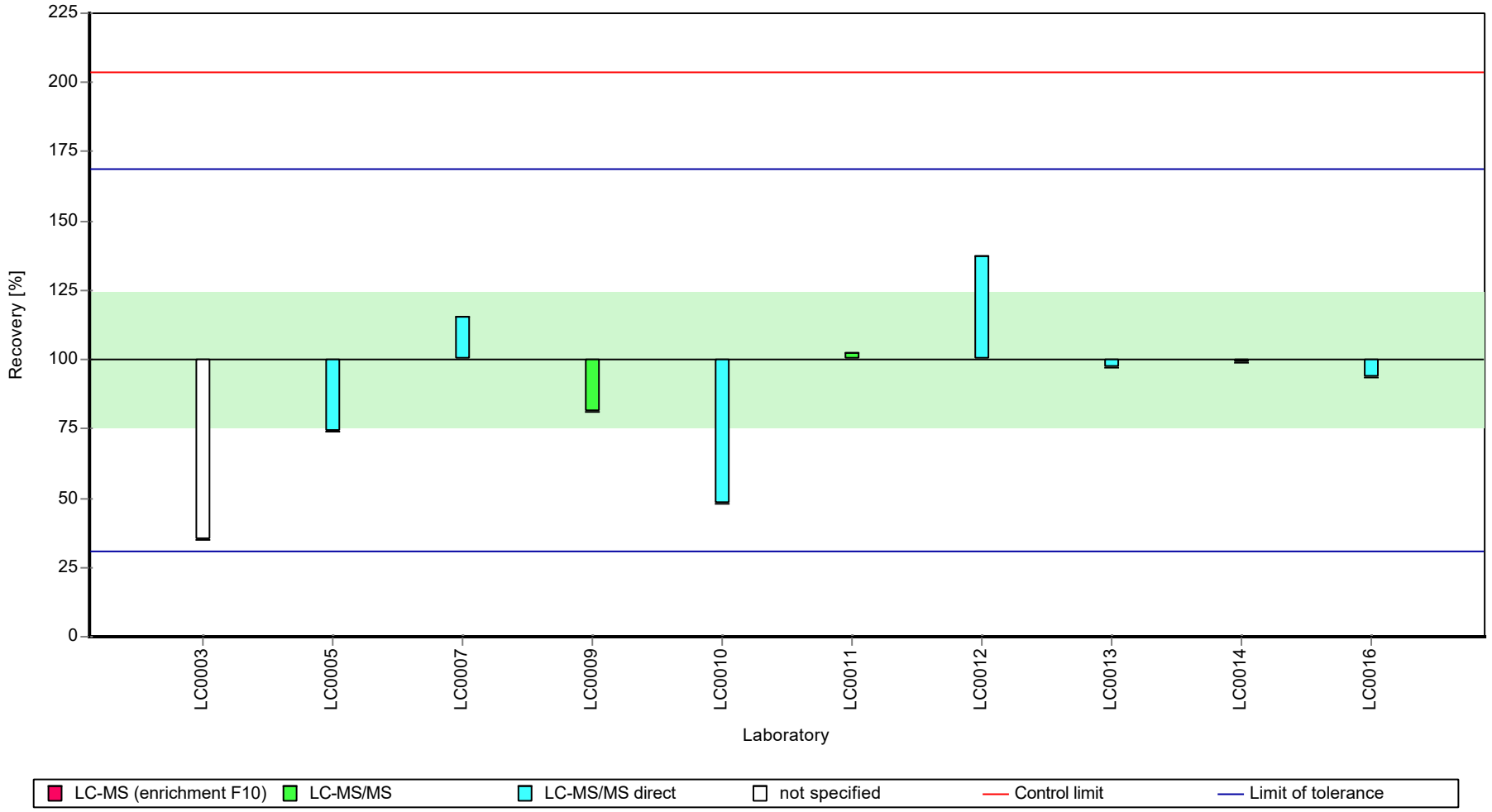
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± CI (99%) | 29 ± 9.5 | 29 ± 9.5 | µg/l |
| Minimum | 11.4 | 11.4 | µg/l |
| Maximum | 45.2 | 45.2 | µg/l |
| Standard deviation | 10 | 10 | µg/l |
| rel. standard deviation | 34.5 | 34.5 | % |
| n | 10 | 10 | - |

**Graphical presentation of results**

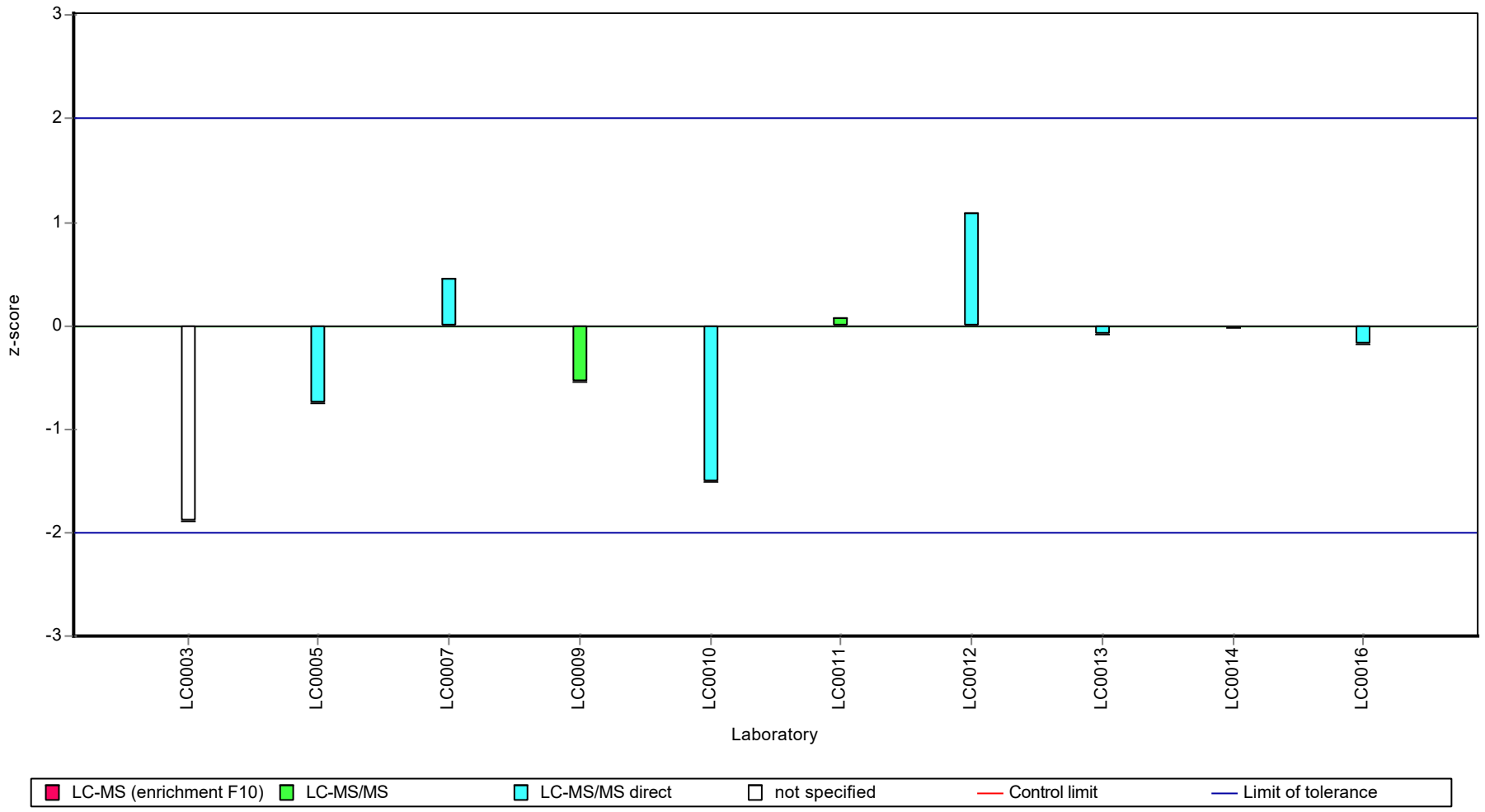
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0003
LC0005
LC0007
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0016
Laboratory
LC-MS (enrichment F10)
LC-MS/MS
LC-MS/MS direct
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 A

## Metoprolol

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.147 ± 0.0105 |
| Criterion | 0.0368 (25 %) |
| Minimum - Maximum | 0.11 - 0.19 |
| Control test value ± U (k=2) | 0.173 ± 0.0259 |

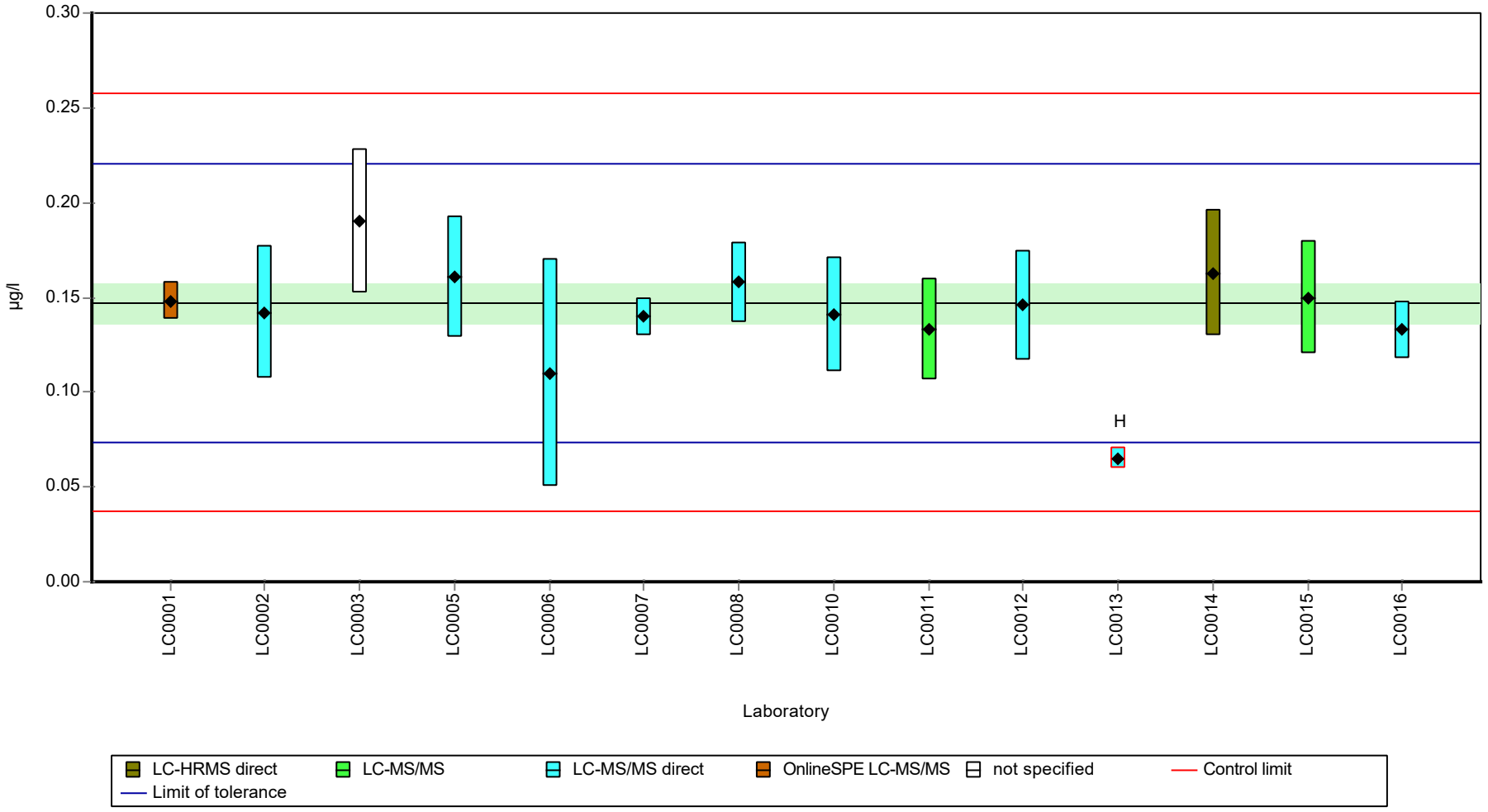
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | 0.148 | 0.01 | 100 | 0.02 | |
| LC0002 | 0.142 | 0.035 | 96.4 | -0.14 | |
| LC0003 | 0.19 | 0.038 | 129 | 1.16 | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.161 | 0.032 | 109 | 0.37 | |
| LC0006 | 0.11 | 0.06 | 74.7 | -1.01 | |
| LC0007 | 0.14 | 0.01 | 95 | -0.2 | |
| LC0008 | 0.158 | 0.021 | 107 | 0.29 | |
| LC0009 | - | - | - | - | |
| LC0010 | 0.141 | 0.03 | 95.7 | -0.17 | |
| LC0011 | 0.133 | 0.027 | 90.3 | -0.39 | |
| LC0012 | 0.146 | 0.029 | 99.1 | -0.04 | |
| LC0013 | 0.065 | 0.0057 | 44.1 | -2.23 | H |
| LC0014 | 0.163 | 0.033 | 111 | 0.43 | |
| LC0015 | 0.15 | 0.03 | 102 | 0.07 | |
| LC0016 | 0.133 | 0.015 | 90.3 | -0.39 | |

**Characteristics of parameter**

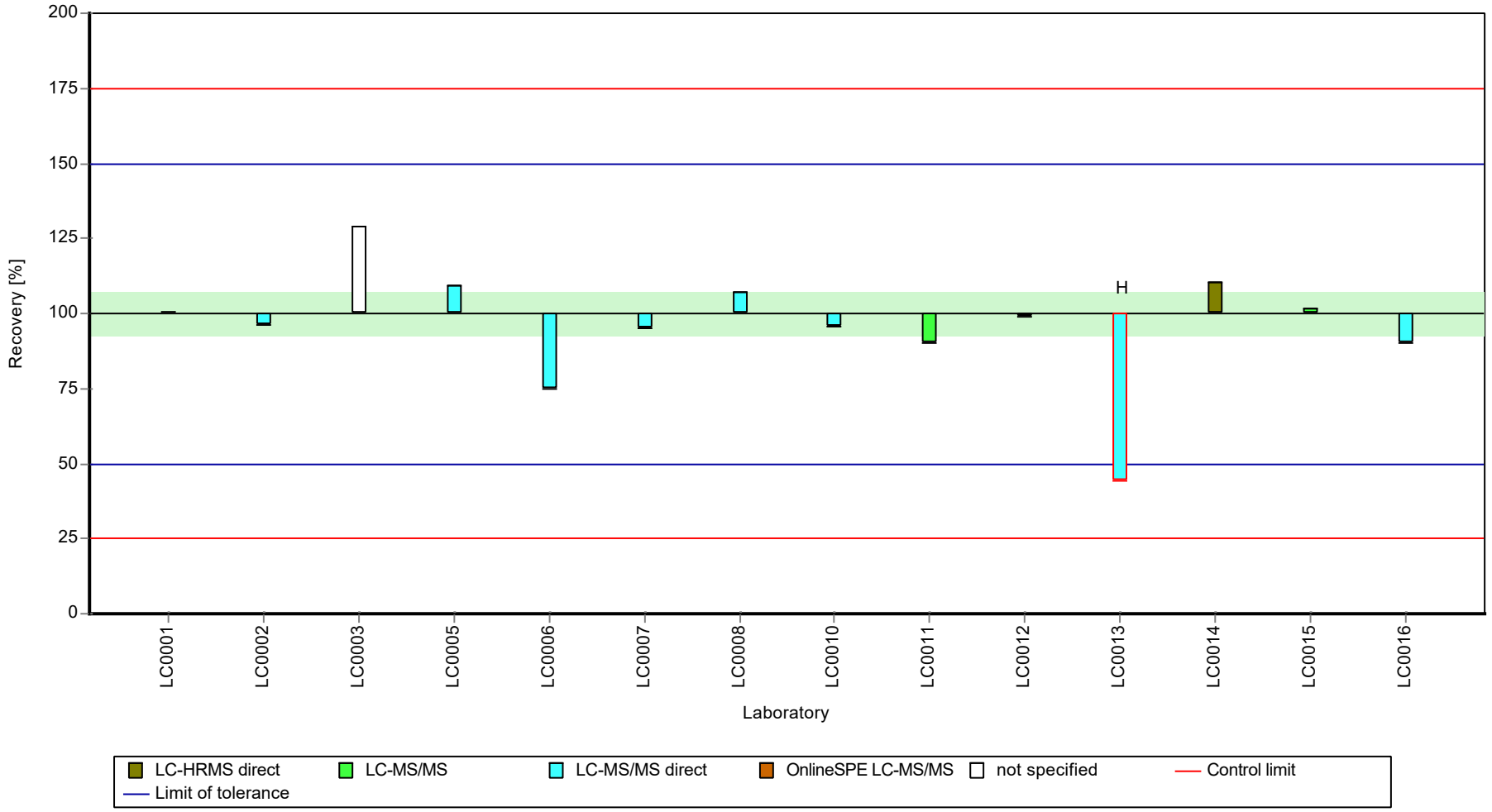
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.141 ± 0.0229 | 0.147 ± 0.0158 | µg/l |
| Minimum | 0.065 | 0.11 | µg/l |
| Maximum | 0.19 | 0.19 | µg/l |
| Standard deviation | 0.0285 | 0.0189 | µg/l |
| rel. standard deviation | 20.2 | 12.9 | % |
| n | 14 | 13 | - |

**Graphical presentation of results**

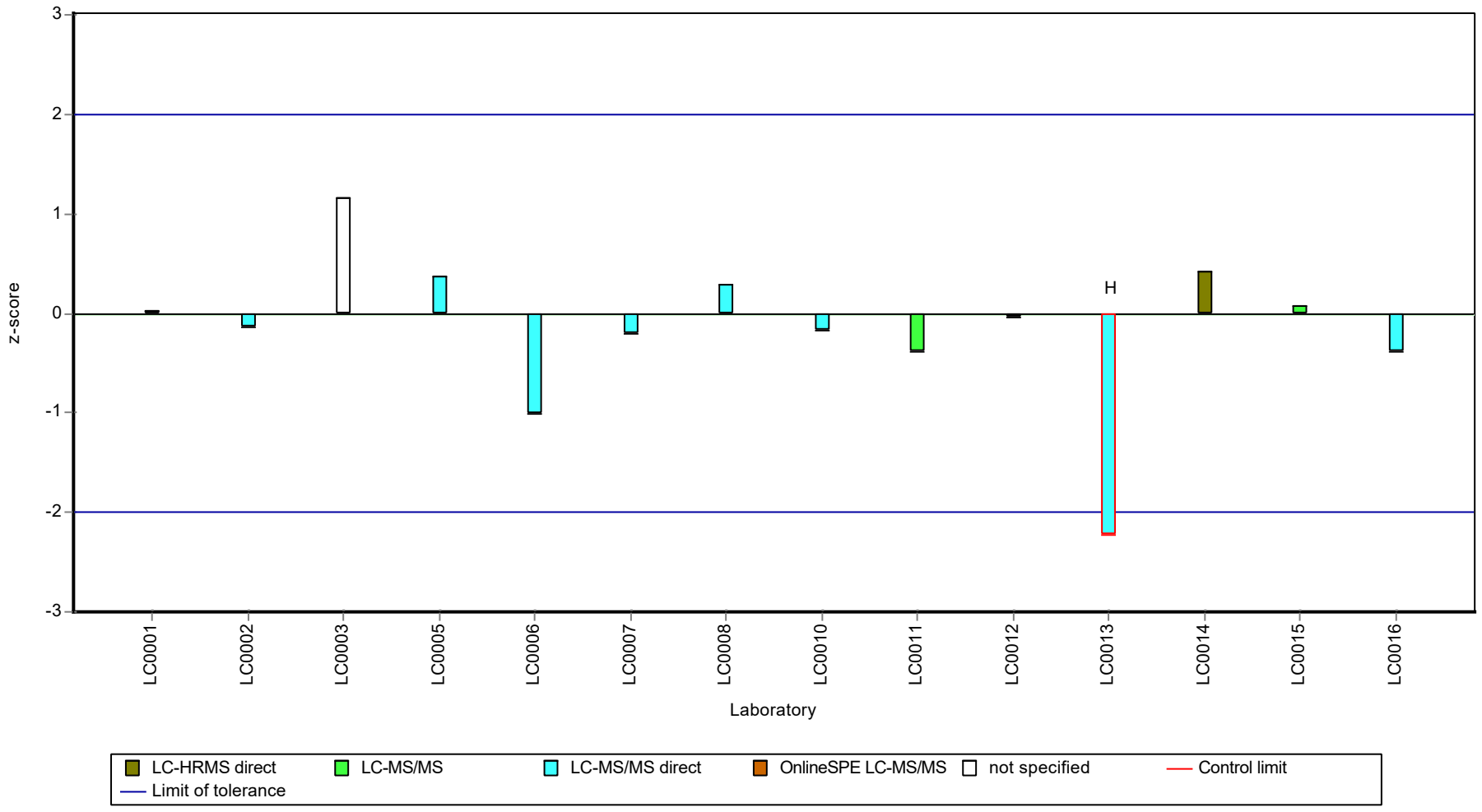
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
H
LC0001
LC0002
LC0003
LC0005
LC0006
LC0007
LC0008
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
Laboratory
LC-HRMS direct
LC-MS/MS
LC-MS/MS direct
OnlineSPE LC-MS/MS
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 B

## Metoprolol

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.235 ± 0.0183 |
| Criterion | 0.0587 (25 %) |
| Minimum - Maximum | 0.192 - 0.305 |
| Control test value ± U (k=2) | 0.258 ± 0.0387 |

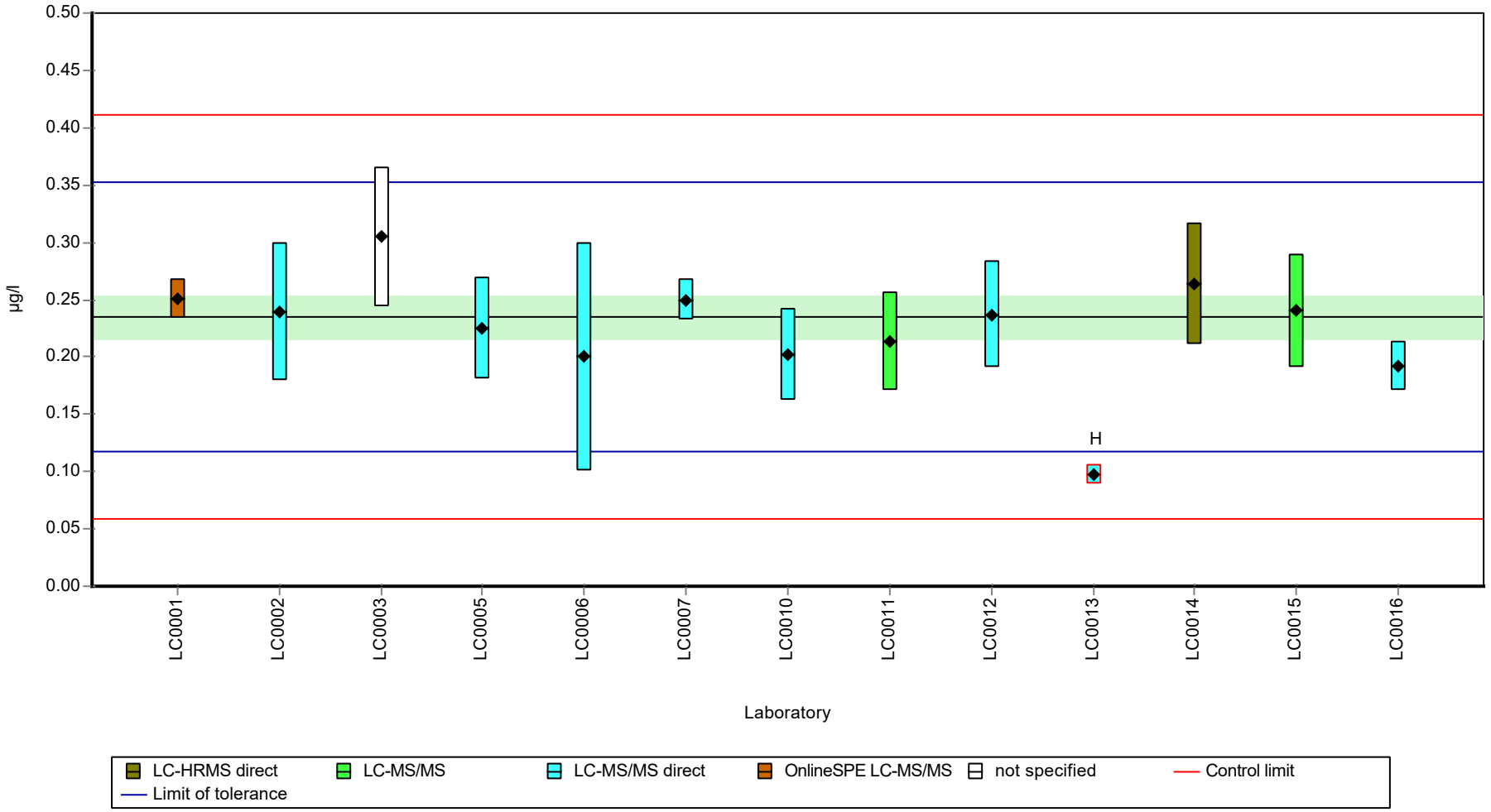
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | 0.251 | 0.017 | 107 | 0.28 | |
| LC0002 | 0.239 | 0.06 | 102 | 0.07 | |
| LC0003 | 0.305 | 0.061 | 130 | 1.19 | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.225 | 0.045 | 95.8 | -0.17 | |
| LC0006 | 0.2 | 0.1 | 85.2 | -0.59 | |
| LC0007 | 0.25 | 0.018 | 106 | 0.26 | |
| LC0008 | - | - | - | - | |
| LC0009 | - | - | - | - | |
| LC0010 | 0.2015 | 0.04 | 85.8 | -0.57 | |
| LC0011 | 0.214 | 0.043 | 91.1 | -0.36 | |
| LC0012 | 0.237 | 0.047 | 101 | 0.04 | |
| LC0013 | 0.098 | 0.0086 | 41.7 | -2.33 | H |
| LC0014 | 0.264 | 0.053 | 112 | 0.5 | |
| LC0015 | 0.24 | 0.05 | 102 | 0.09 | |
| LC0016 | 0.192 | 0.021 | 81.7 | -0.73 | |

**Characteristics of parameter**

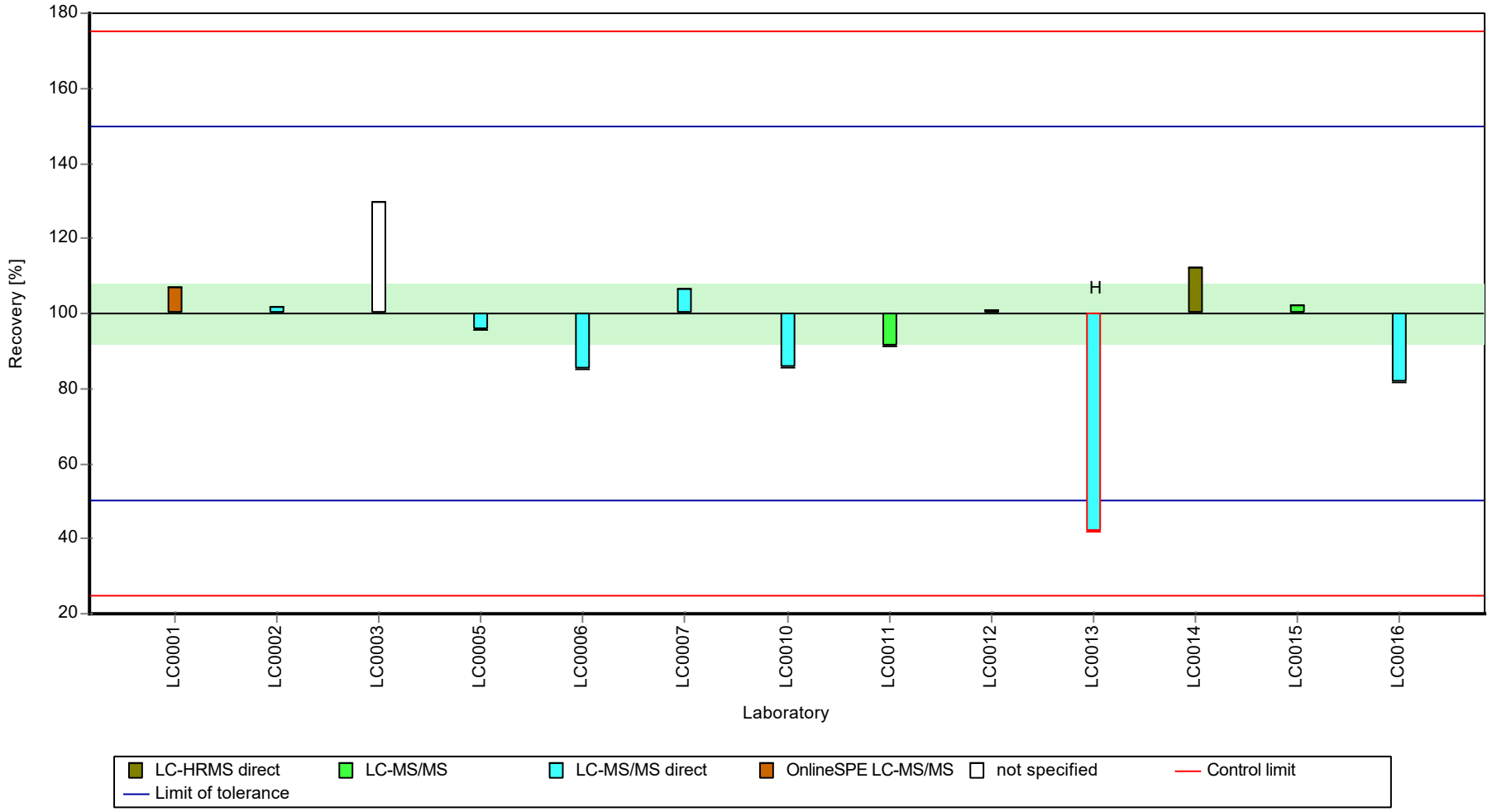
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.224 ± 0.0404 | 0.235 ± 0.0274 | µg/l |
| Minimum | 0.098 | 0.192 | µg/l |
| Maximum | 0.305 | 0.305 | µg/l |
| Standard deviation | 0.0486 | 0.0316 | µg/l |
| rel. standard deviation | 21.6 | 13.5 | % |
| n | 13 | 12 | - |

**Graphical presentation of results**

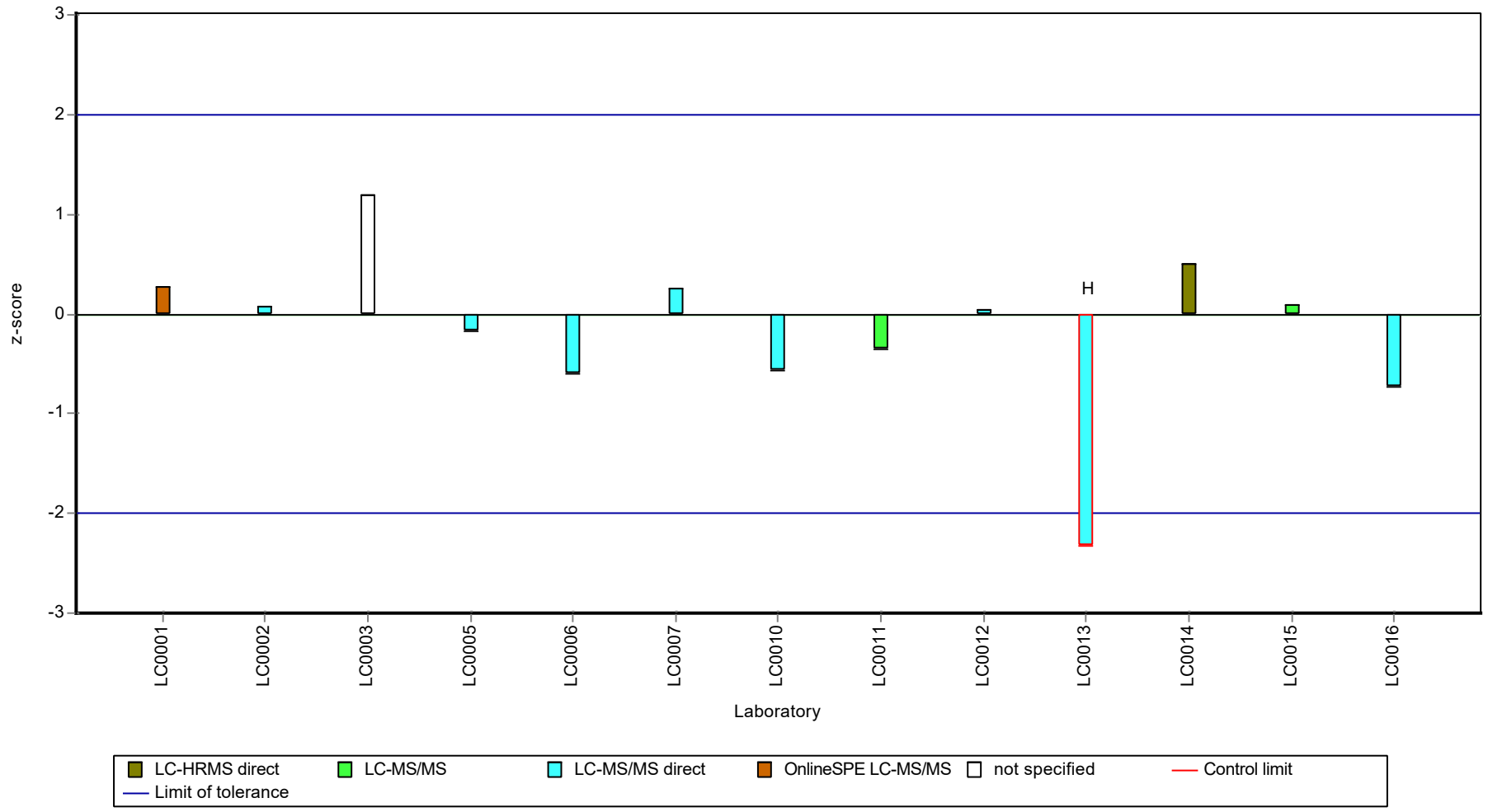
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
H
LC0001
LC0002
LC0003
LC0005
LC0006
LC0007
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
Laboratory
LC-HRMS direct
LC-MS/MS
LC-MS/MS direct
OnlineSPE LC-MS/MS
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 A

## Saccharin

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | - |
| Criterion | - |
| Minimum - Maximum | 0.016 - 0.019 |
| Control test value ± U (k=2) | < 0,025 (LOQ) |

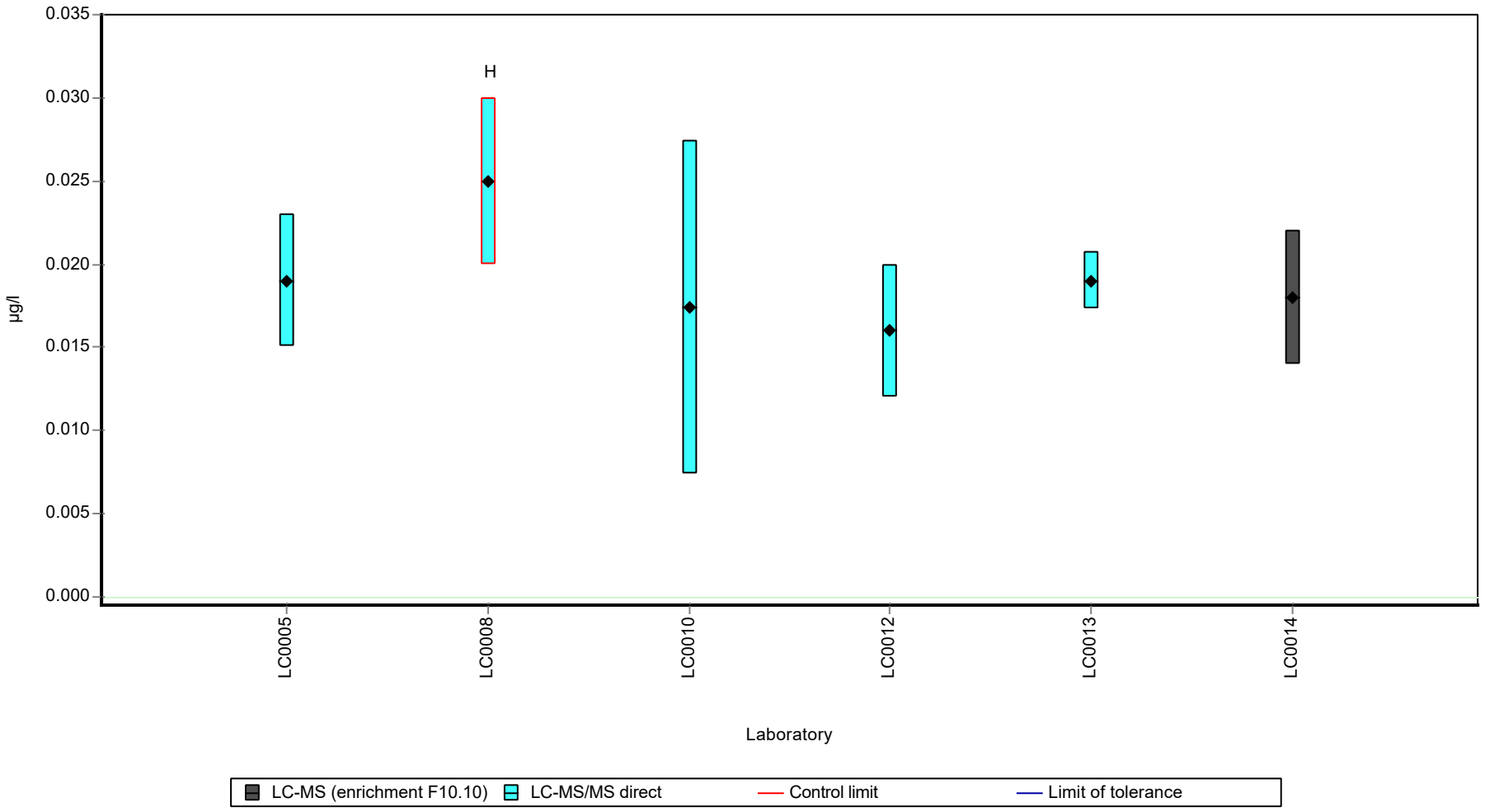
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | - | - | - | - | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.019 | 0.004 | - | - | |
| LC0006 | - | - | - | - | |
| LC0007 | - | - | - | - | |
| LC0008 | 0.025 | 0.005 | - | - | H |
| LC0009 | < 0.05 (LOQ) | - | - | - | |
| LC0010 | 0.0174 | 0.01 | - | - | |
| LC0011 | - | - | - | - | |
| LC0012 | 0.016 | 0.004 | - | - | |
| LC0013 | 0.019 | 0.0017 | - | - | |
| LC0014 | 0.018 | 0.004 | - | - | |
| LC0015 | - | - | - | - | |
| LC0016 | - | - | - | - | |

**Characteristics of parameter**

| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± CI (99%) | 0.0191 ± 0.00382 | - | µg/l |
| Minimum | 0.016 | 0.016 | µg/l |
| Maximum | 0.025 | 0.019 | µg/l |
| Standard deviation | 0.00312 | - | µg/l |
| rel. standard deviation | 16.3 | - | % |
| n | 6 | 5 | - |

**Graphical presentation of results**

**Results**



# Parameter oriented report

## AZ7 B

## Saccharin

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 1.39 ± 0.0833 |
| Criterion | 0.306 (22 %) |
| Minimum - Maximum | 1.29 - 1.56 |
| Control test value ± U (k=2) | 1.29 ± 0.193 |

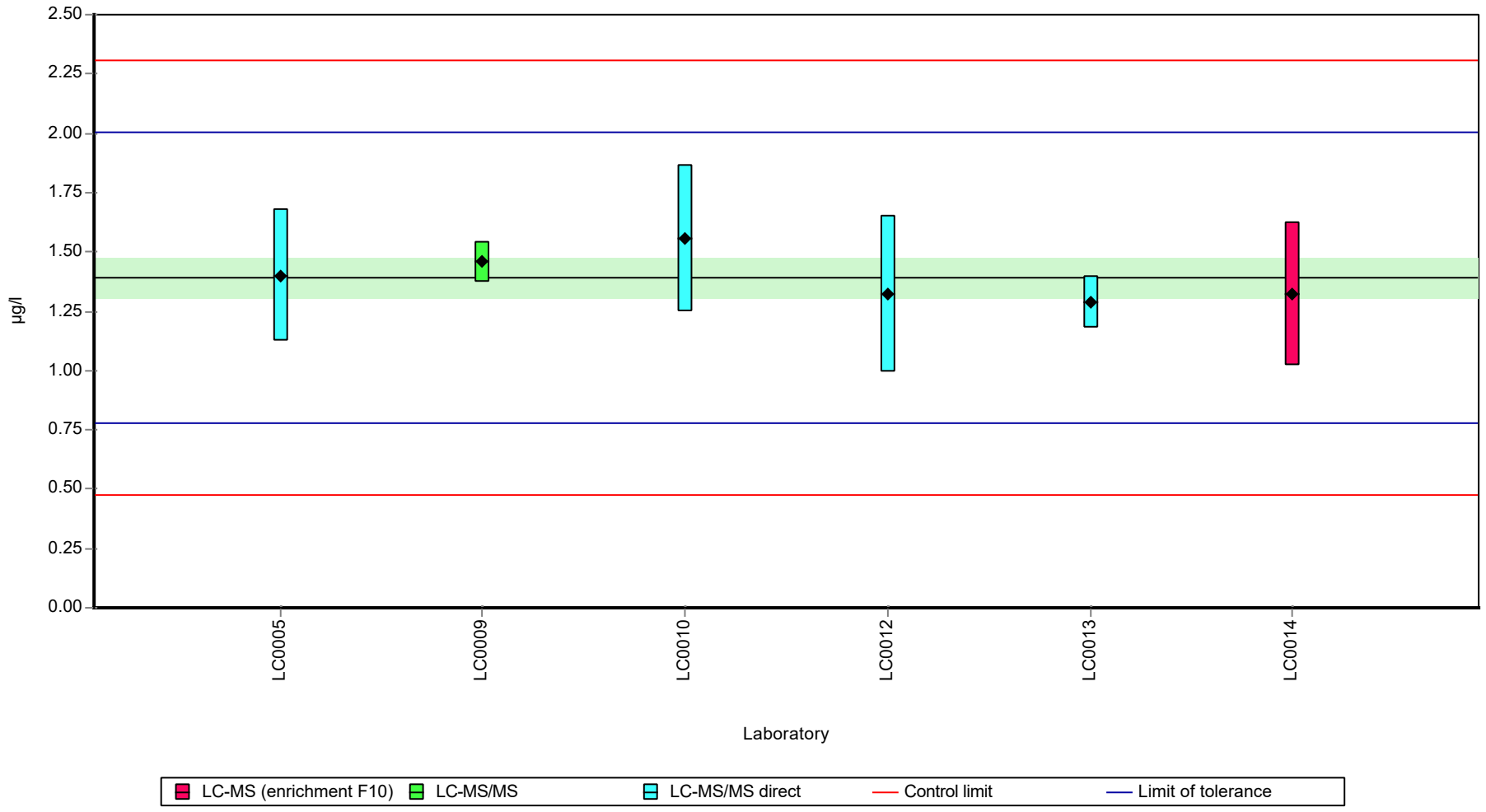
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | - | - | - | - | |
| LC0004 | - | - | - | - | |
| LC0005 | 1.4 | 0.28 | 101 | 0.03 | |
| LC0006 | - | - | - | - | |
| LC0007 | - | - | - | - | |
| LC0008 | - | - | - | - | |
| LC0009 | 1.458 | 0.087 | 105 | 0.22 | |
| LC0010 | 1.5576 | 0.31 | 112 | 0.54 | |
| LC0011 | - | - | - | - | |
| LC0012 | 1.324 | 0.331 | 95.1 | -0.22 | |
| LC0013 | 1.29 | 0.11 | 92.7 | -0.33 | |
| LC0014 | 1.32 | 0.304 | 94.9 | -0.23 | |
| LC0015 | - | - | - | - | |
| LC0016 | - | - | - | - | |

**Characteristics of parameter**

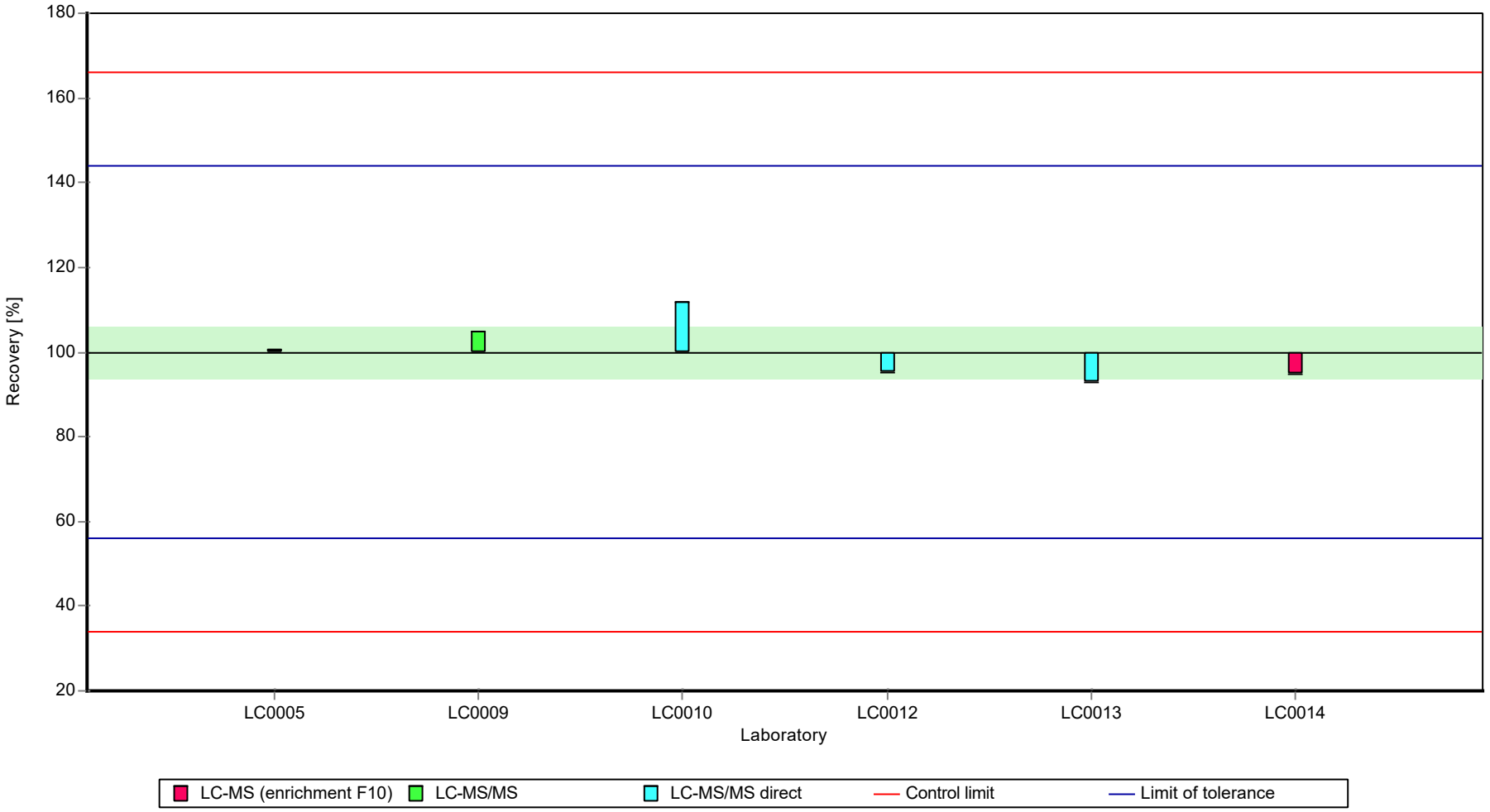
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 1.39 ± 0.125 | 1.39 ± 0.125 | µg/l |
| Minimum | 1.29 | 1.29 | µg/l |
| Maximum | 1.56 | 1.56 | µg/l |
| Standard deviation | 0.102 | 0.102 | µg/l |
| rel. standard deviation | 7.33 | 7.33 | % |
| n | 6 | 6 | - |

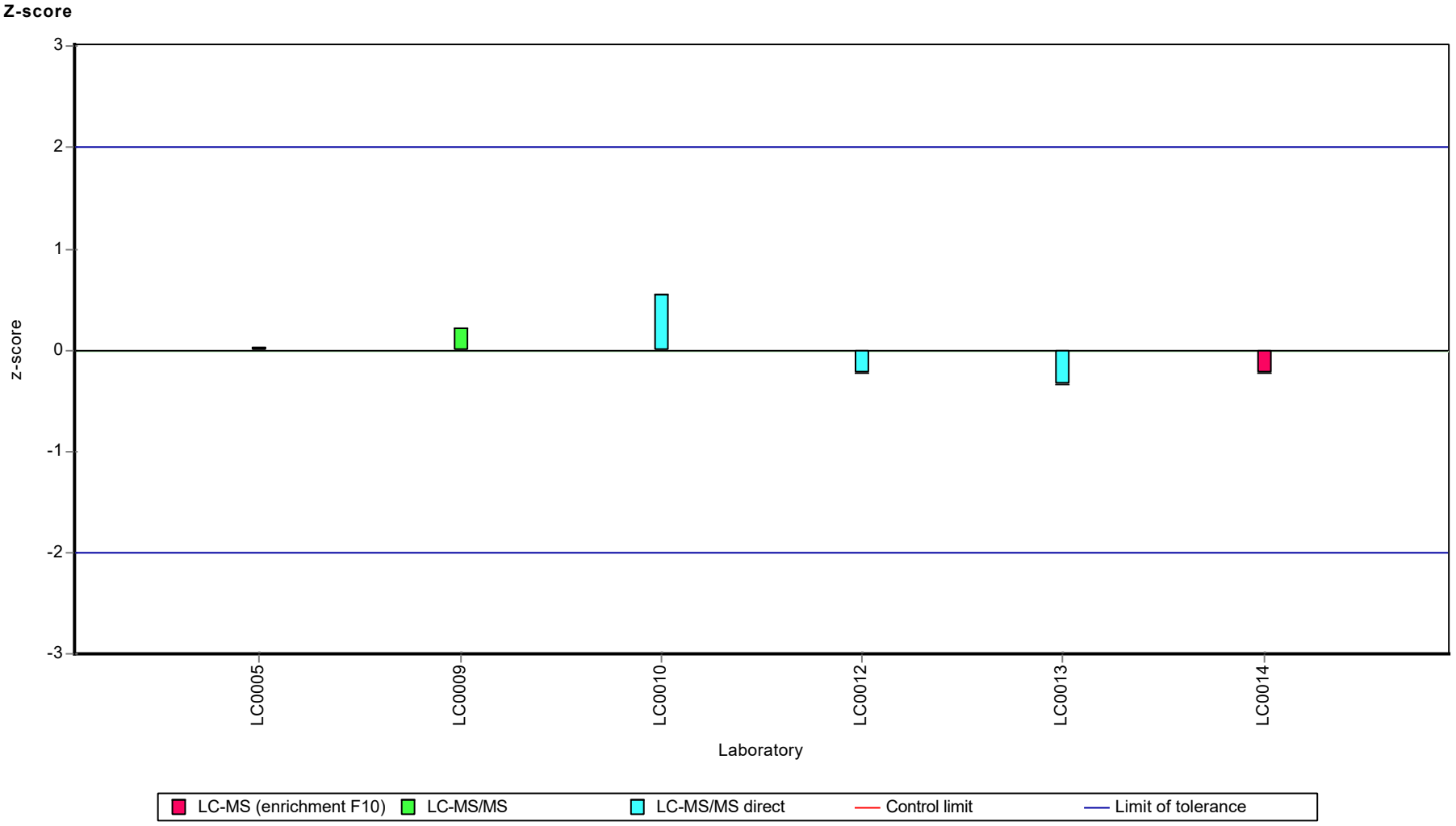
**Graphical presentation of results**

**Results**



**Recovery rate**




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0005
LC0009
LC0010
LC0012
LC0013
LC0014
Laboratory
LC-MS (enrichment F10)
LC-MS/MS
LC-MS/MS direct
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 A

## Sotalol

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.167 ± 0.0145 |
| Criterion | 0.0368 (22 %) |
| Minimum - Maximum | 0.133 - 0.206 |
| Control test value ± U (k=2) | 0.154 ± 0.0231 |

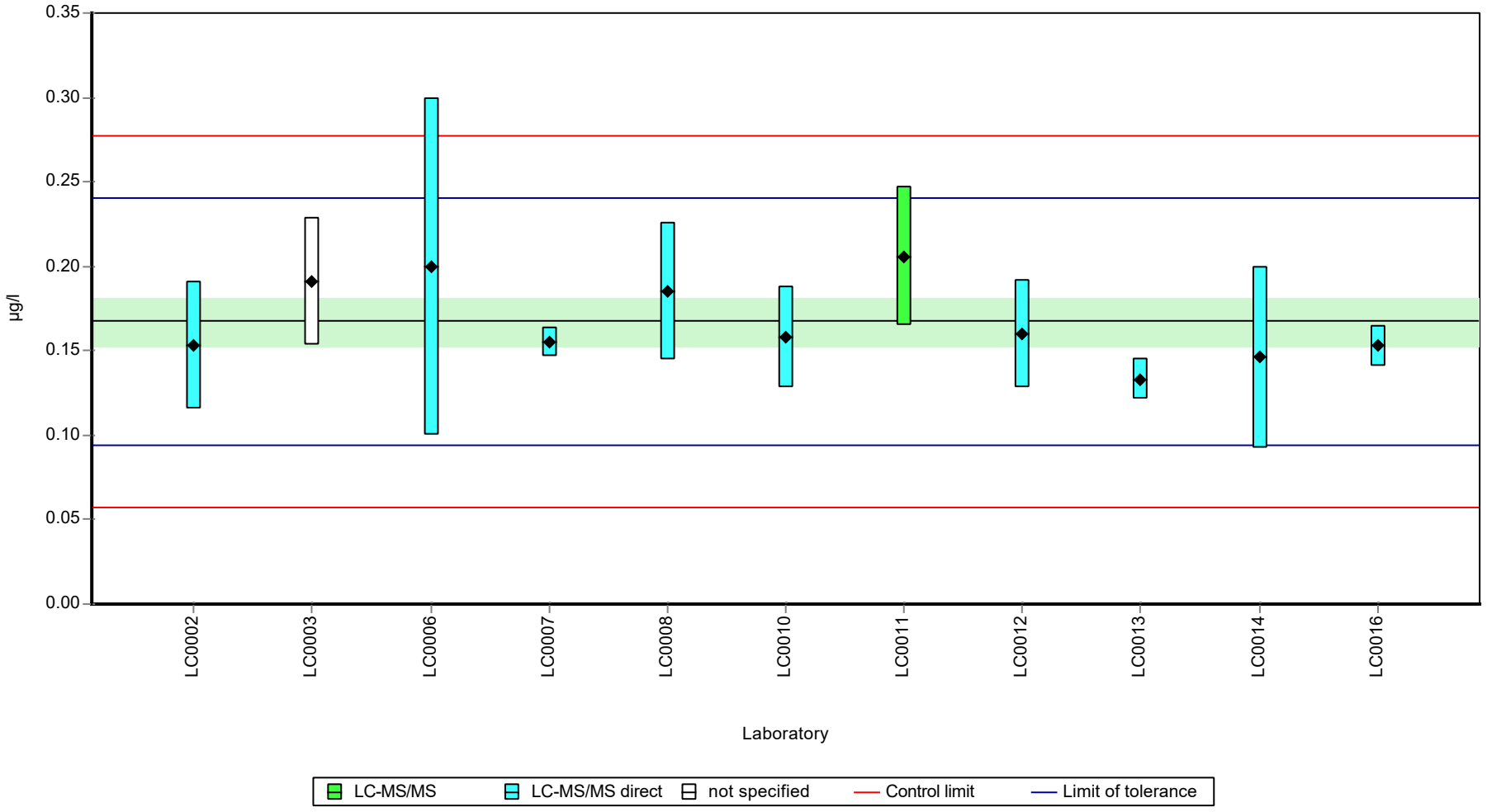
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | 0.153 | 0.038 | 91.5 | -0.39 | |
| LC0003 | 0.191 | 0.038 | 114 | 0.65 | |
| LC0004 | - | - | - | - | |
| LC0005 | - | - | - | - | |
| LC0006 | 0.2 | 0.1 | 120 | 0.89 | |
| LC0007 | 0.155 | 0.009 | 92.7 | -0.33 | |
| LC0008 | 0.185 | 0.041 | 111 | 0.48 | |
| LC0009 | - | - | - | - | |
| LC0010 | 0.158 | 0.03 | 94.5 | -0.25 | |
| LC0011 | 0.206 | 0.041 | 123 | 1.05 | |
| LC0012 | 0.16 | 0.032 | 95.7 | -0.2 | |
| LC0013 | 0.133 | 0.012 | 79.5 | -0.93 | |
| LC0014 | 0.146 | 0.054 | 87.3 | -0.58 | |
| LC0015 | - | - | - | - | |
| LC0016 | 0.153 | 0.012 | 91.5 | -0.39 | |

**Characteristics of parameter**

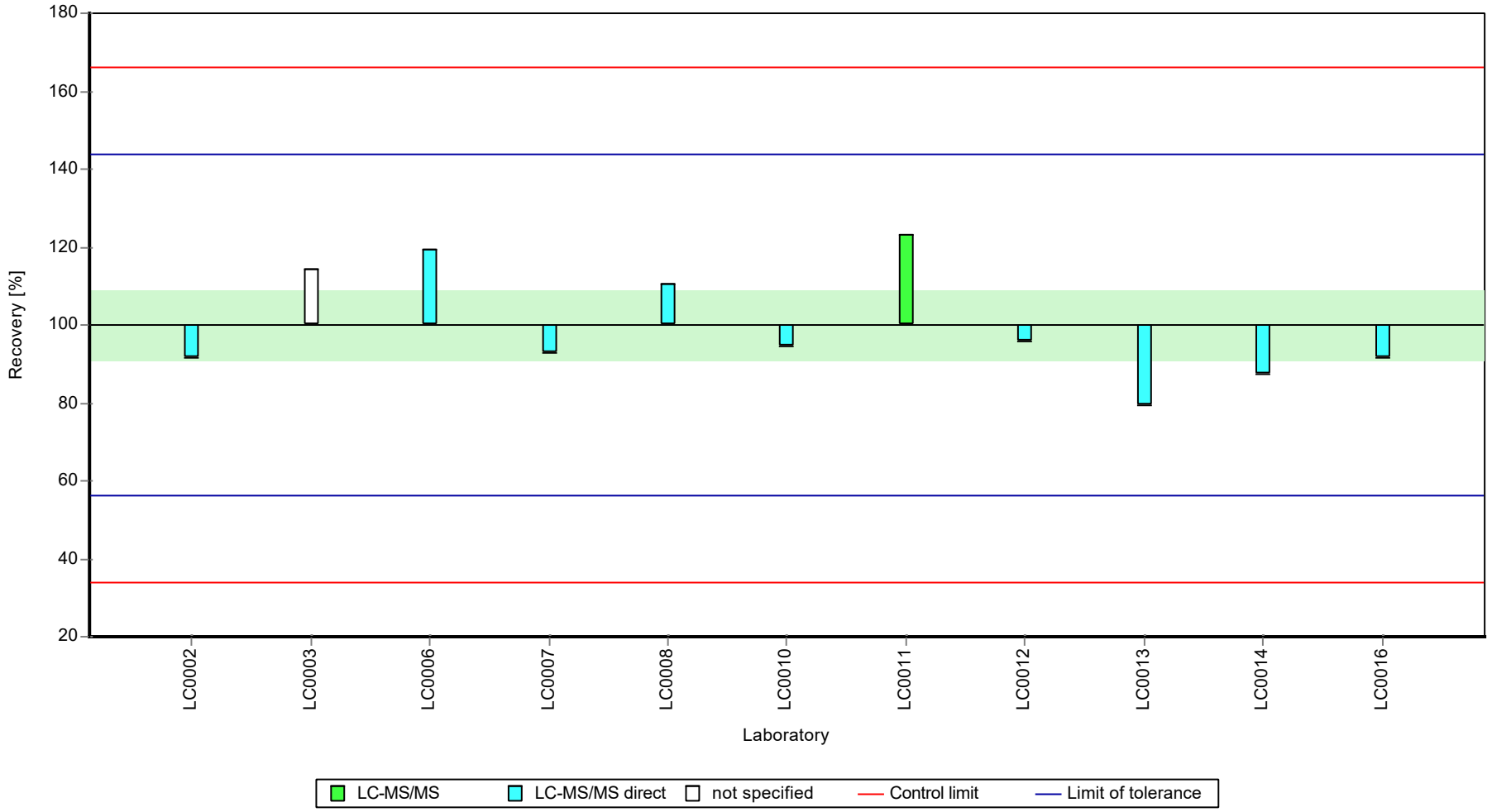
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.167 ± 0.0217 | 0.167 ± 0.0217 | µg/l |
| Minimum | 0.133 | 0.133 | µg/l |
| Maximum | 0.206 | 0.206 | µg/l |
| Standard deviation | 0.024 | 0.024 | µg/l |
| rel. standard deviation | 14.4 | 14.4 | % |
| n | 11 | 11 | - |

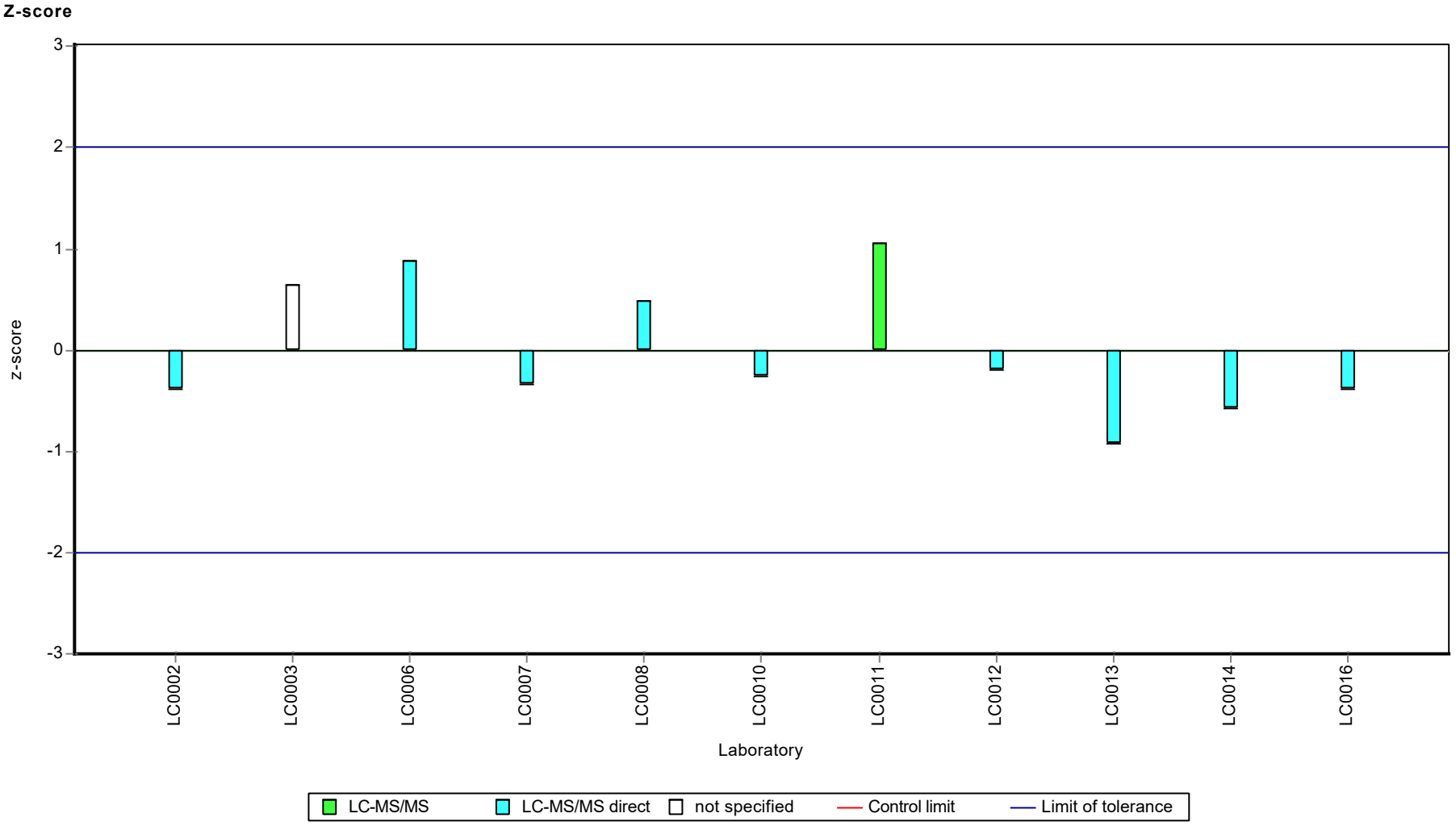
**Graphical presentation of results**

**Results**



**Recovery rate**




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0002
LC0003
LC0006
LC0007
LC0008
LC0010
LC0011
LC0012
LC0013
LC0014
LC0016
Laboratory
LC-MS/MS
LC-MS/MS direct
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 B

## Sotalol

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.206 ± 0.0241 |
| Criterion | 0.0452 (22 %) |
| Minimum - Maximum | 0.16 - 0.265 |
| Control test value ± U (k=2) | 0.199 ± 0.0299 |

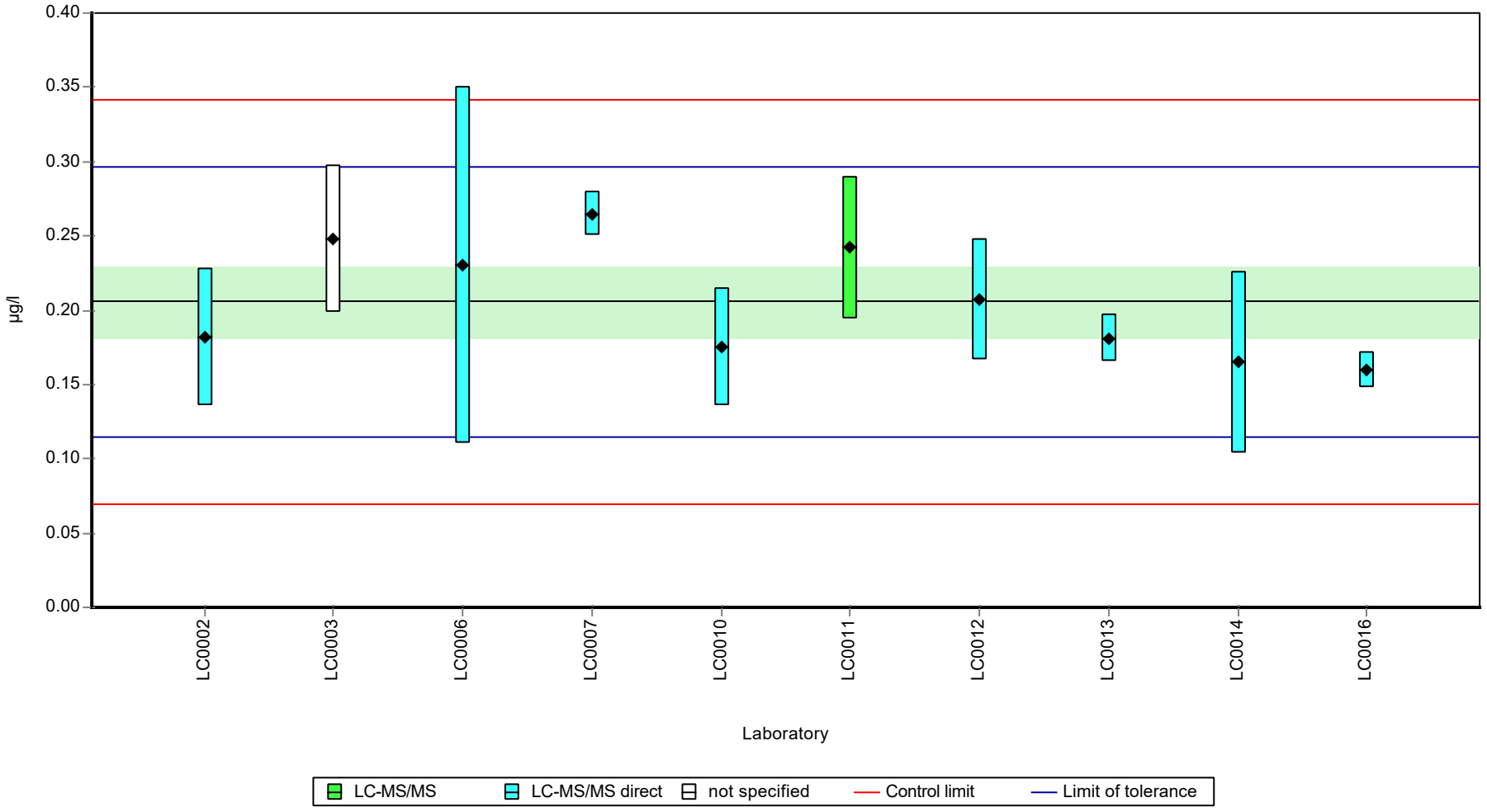
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | 0.182 | 0.046 | 88.6 | -0.52 | |
| LC0003 | 0.248 | 0.05 | 121 | 0.94 | |
| LC0004 | - | - | - | - | |
| LC0005 | - | - | - | - | |
| LC0006 | 0.23 | 0.12 | 112 | 0.54 | |
| LC0007 | 0.265 | 0.015 | 129 | 1.32 | |
| LC0008 | - | - | - | - | |
| LC0009 | - | - | - | - | |
| LC0010 | 0.1753 | 0.04 | 85.3 | -0.67 | |
| LC0011 | 0.242 | 0.048 | 118 | 0.81 | |
| LC0012 | 0.207 | 0.041 | 101 | 0.03 | |
| LC0013 | 0.181 | 0.016 | 88.1 | -0.54 | |
| LC0014 | 0.165 | 0.061 | 80.3 | -0.9 | |
| LC0015 | - | - | - | - | |
| LC0016 | 0.16 | 0.012 | 77.8 | -1.01 | |

**Characteristics of parameter**

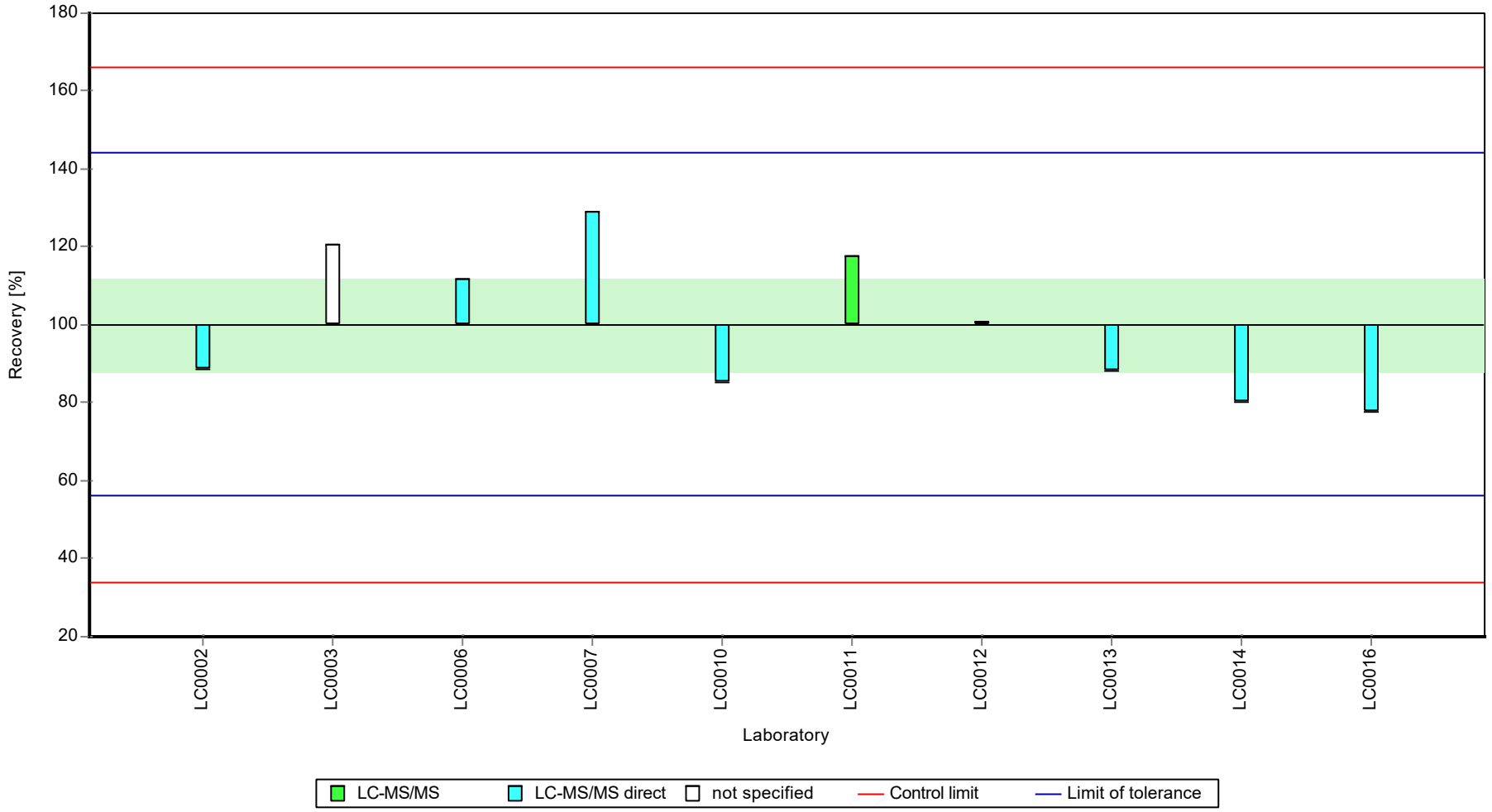
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.206 ± 0.0361 | 0.206 ± 0.0361 | µg/l |
| Minimum | 0.16 | 0.16 | µg/l |
| Maximum | 0.265 | 0.265 | µg/l |
| Standard deviation | 0.0381 | 0.0381 | µg/l |
| rel. standard deviation | 18.5 | 18.5 | % |
| n | 10 | 10 | - |

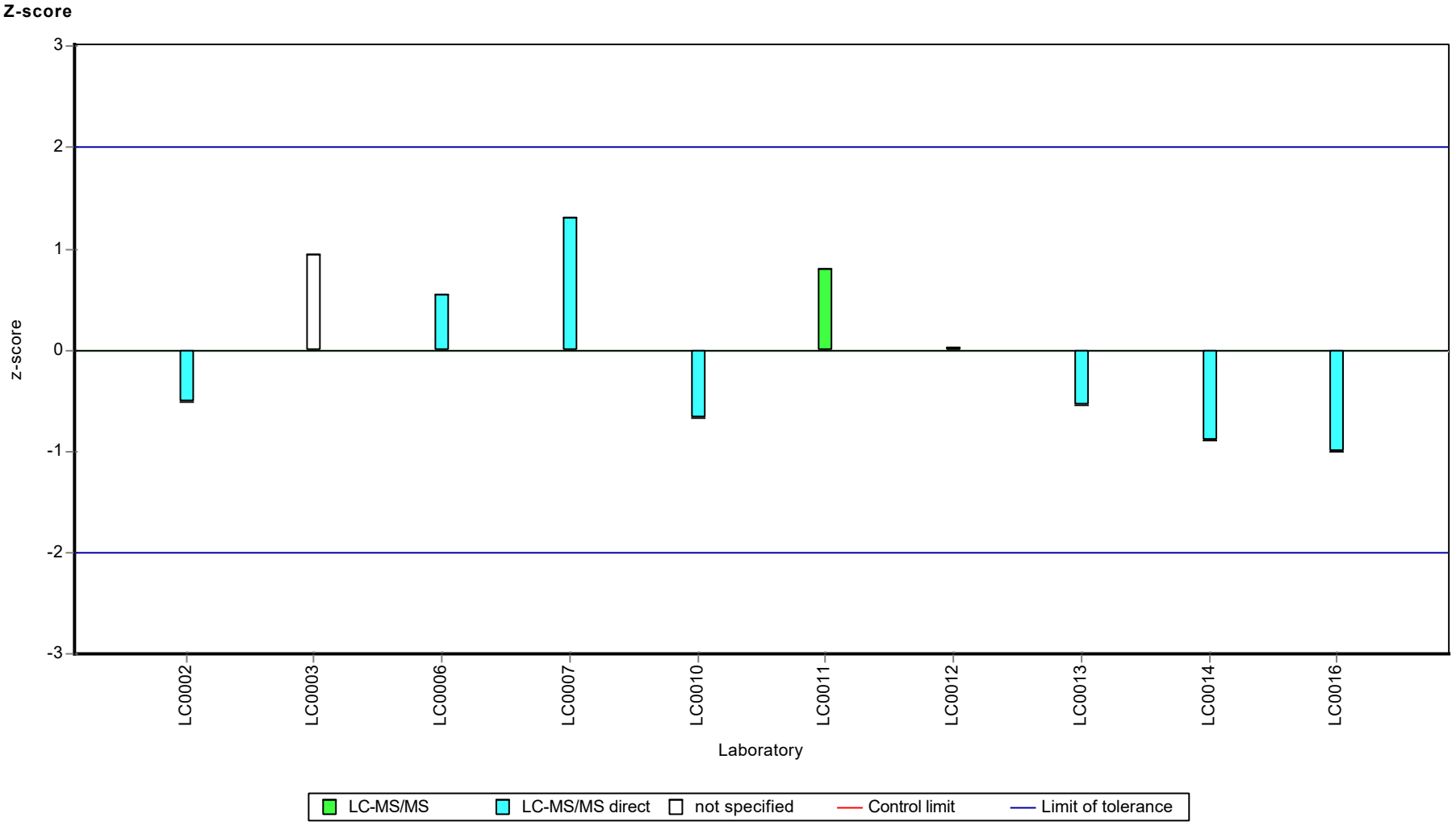
**Graphical presentation of results**

**Results**



**Recovery rate**




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0002
LC0003
LC0006
LC0007
LC0010
LC0011
LC0012
LC0013
LC0014
LC0016
Laboratory
LC-MS/MS
LC-MS/MS direct
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 A

## Sucralose

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.337 ± 0.0483 |
| Criterion | 0.101 (30 %) |
| Minimum - Maximum | 0.226 - 0.398 |
| Control test value ± U (k=2) | - |

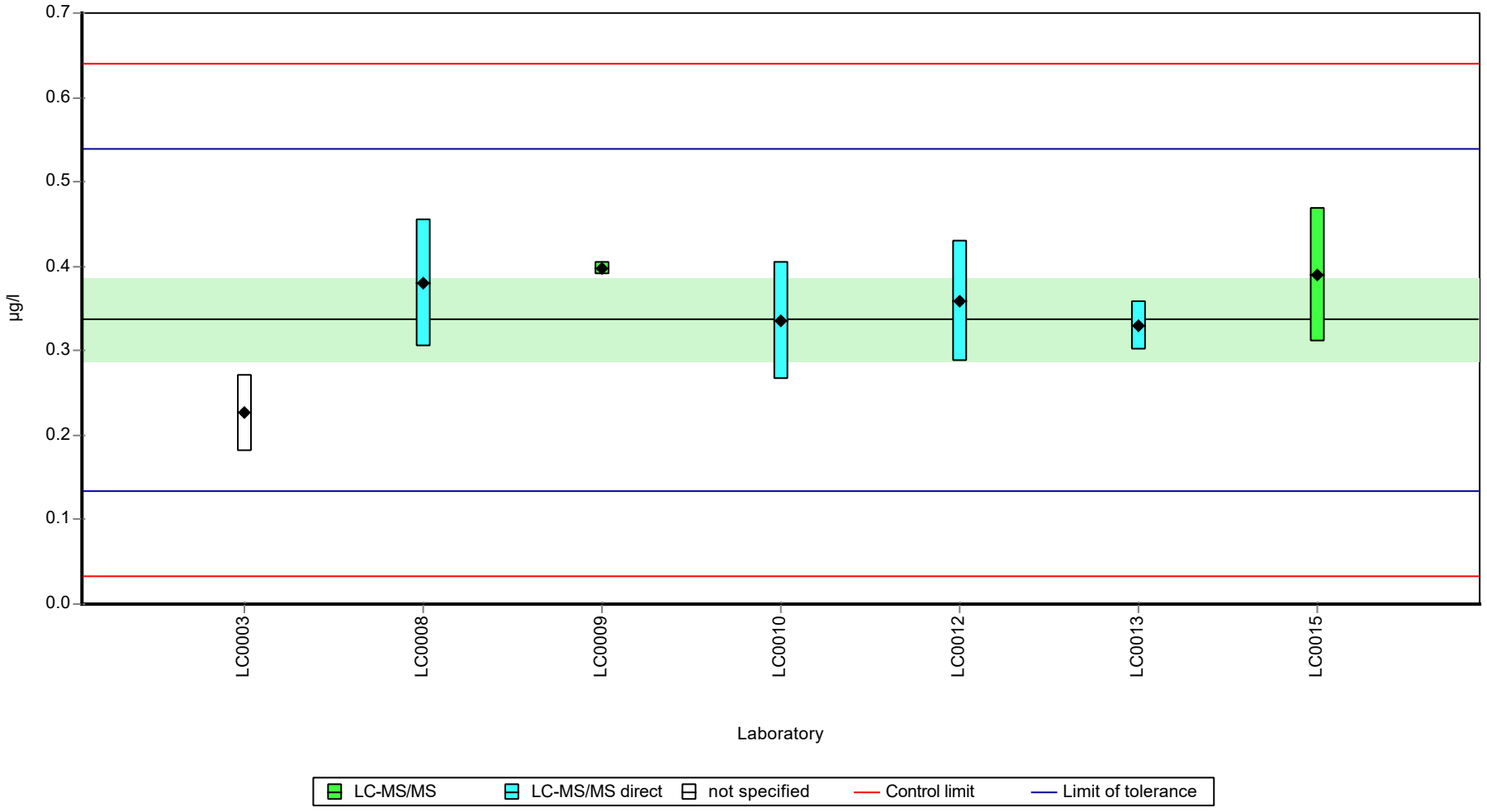
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | 0.226 | 0.045 | 67.1 | -1.1 | |
| LC0004 | - | - | - | - | |
| LC0005 | - | - | - | - | |
| LC0006 | - | - | - | - | |
| LC0007 | - | - | - | - | |
| LC0008 | 0.38 | 0.076 | 113 | 0.43 | |
| LC0009 | 0.3975 | 0.0083 | 118 | 0.6 | |
| LC0010 | 0.3358 | 0.07 | 99.7 | -0.01 | |
| LC0011 | - | - | - | - | |
| LC0012 | 0.359 | 0.072 | 107 | 0.22 | |
| LC0013 | 0.33 | 0.029 | 98 | -0.07 | |
| LC0014 | - | - | - | - | |
| LC0015 | 0.39 | 0.08 | 116 | 0.53 | |
| LC0016 | - | - | - | - | |

**Characteristics of parameter**

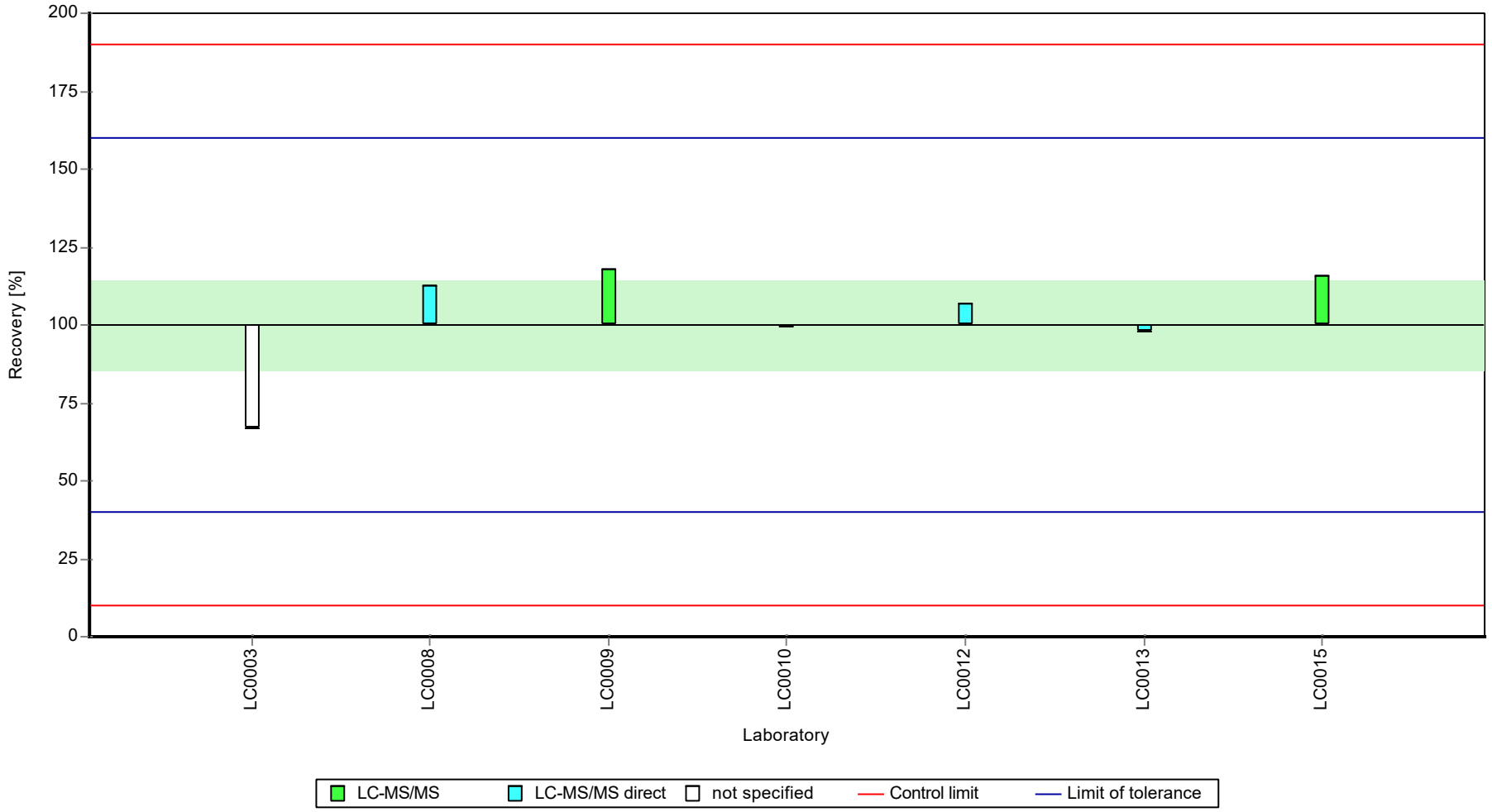
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.345 ± 0.0666 | 0.345 ± 0.0666 | µg/l |
| Minimum | 0.226 | 0.226 | µg/l |
| Maximum | 0.398 | 0.398 | µg/l |
| Standard deviation | 0.0587 | 0.0587 | µg/l |
| rel. standard deviation | 17 | 17 | % |
| n | 7 | 7 | - |

**Graphical presentation of results**

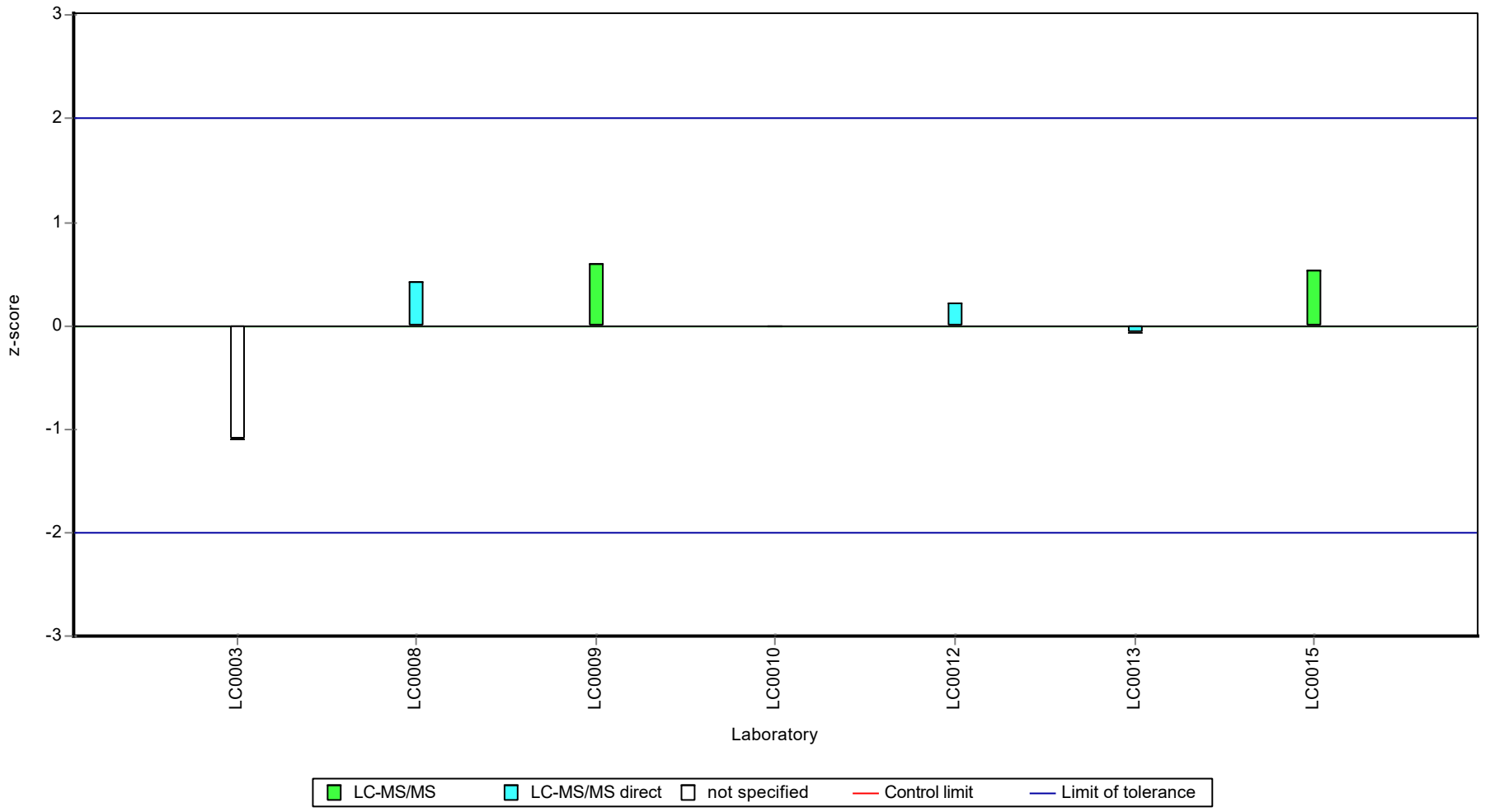
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0003
LC0008
LC0009
LC0010
LC0012
LC0013
LC0015
Laboratory
LC-MS/MS
LC-MS/MS direct
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 B

### Sucralose

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | - |
| Criterion | - |
| Minimum - Maximum | 10.2 - 12.4 |
| Control test value ± U (k=2) | 12.6 ± 1.89 |

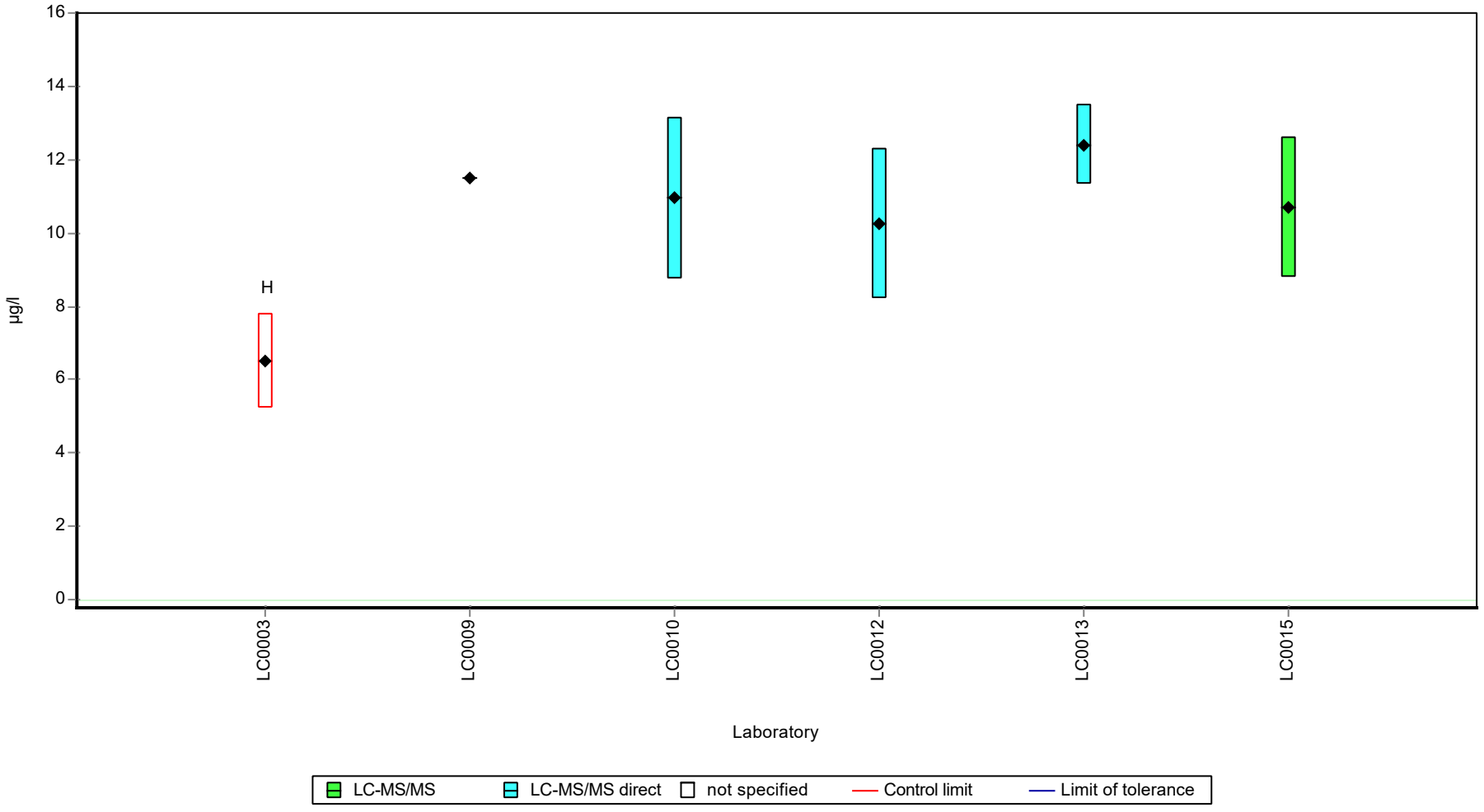
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | - | - | - | - | |
| LC0003 | 6.52 | 1.3 | - | - | H |
| LC0004 | - | - | - | - | |
| LC0005 | - | - | - | - | |
| LC0006 | - | - | - | - | |
| LC0007 | - | - | - | - | |
| LC0008 | - | - | - | - | |
| LC0009 | 11.485 | 0.011 | - | - | |
| LC0010 | 10.9418 | 2.19 | - | - | |
| LC0011 | - | - | - | - | |
| LC0012 | 10.23 | 2.05 | - | - | |
| LC0013 | 12.4 | 1.09 | - | - | |
| LC0014 | - | - | - | - | |
| LC0015 | 10.7 | 1.93 | - | - | |
| LC0016 | - | - | - | - | |

**Characteristics of parameter**

| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 10.4 ± 2.49 | - | µg/l |
| Minimum | 6.52 | 10.2 | µg/l |
| Maximum | 12.4 | 12.4 | µg/l |
| Standard deviation | 2.03 | - | µg/l |
| rel. standard deviation | 19.6 | - | % |
| n | 6 | 5 | - |

**Graphical presentation of results**

**Results**



# Parameter oriented report

## AZ7 A

## Sulfamethoxazole

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.208 ± 0.0115 |
| Criterion | 0.0249 (12 %) |
| Minimum - Maximum | 0.18 - 0.239 |
| Control test value ± U (k=2) | 0.245 ± 0.0367 |

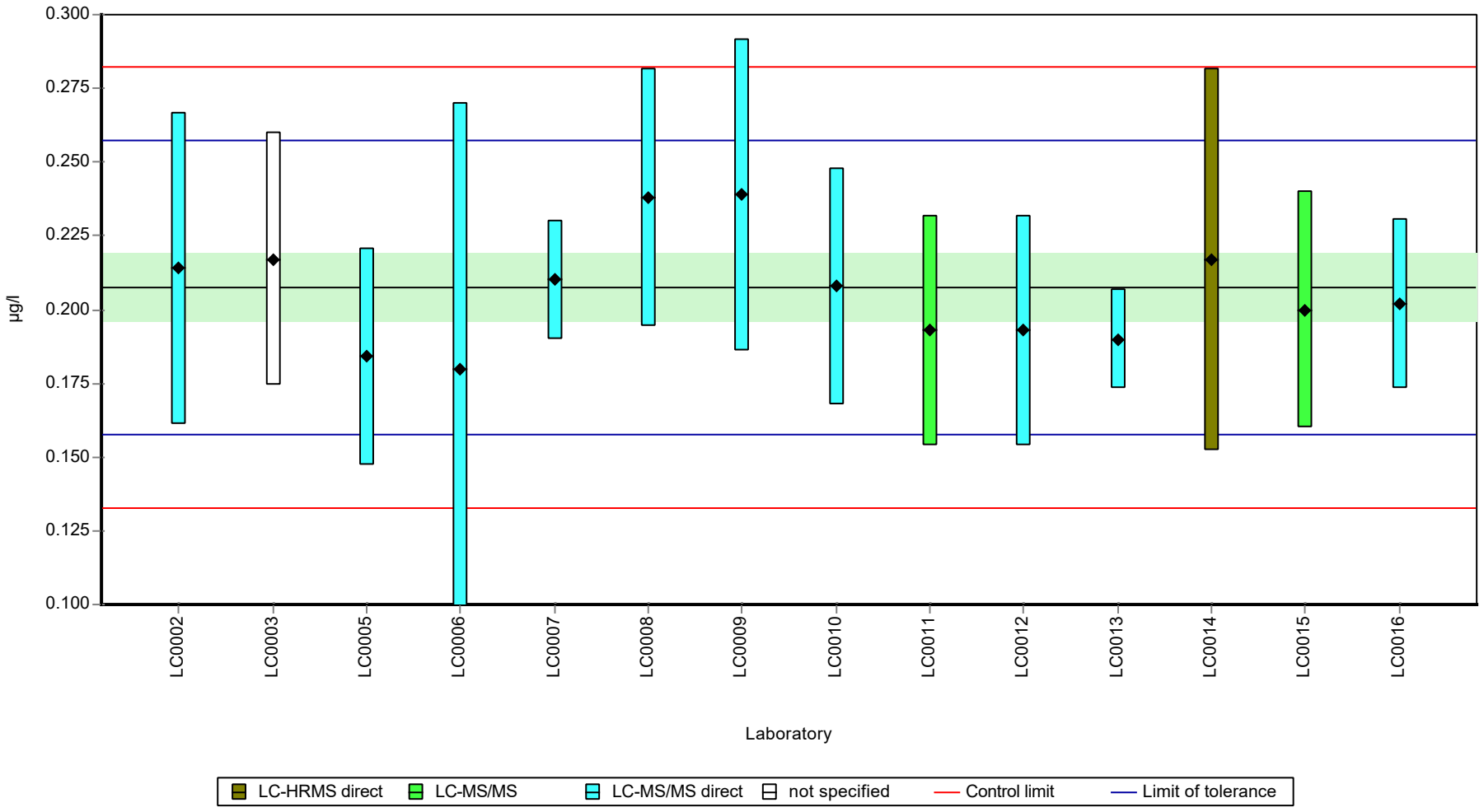
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | 0.214 | 0.053 | 103 | 0.25 | |
| LC0003 | 0.217 | 0.043 | 104 | 0.37 | |
| LC0004 | - | - | - | - | |
| LC0005 | 0.184 | 0.037 | 88.6 | -0.95 | |
| LC0006 | 0.18 | 0.09 | 86.7 | -1.11 | |
| LC0007 | 0.21 | 0.02 | 101 | 0.09 | |
| LC0008 | 0.238 | 0.044 | 115 | 1.22 | |
| LC0009 | 0.2388 | 0.053 | 115 | 1.25 | |
| LC0010 | 0.2078 | 0.04 | 100 | 0.00 | |
| LC0011 | 0.193 | 0.039 | 92.9 | -0.59 | |
| LC0012 | 0.193 | 0.039 | 92.9 | -0.59 | |
| LC0013 | 0.19 | 0.017 | 91.5 | -0.71 | |
| LC0014 | 0.217 | 0.065 | 104 | 0.37 | |
| LC0015 | 0.2 | 0.04 | 96.3 | -0.31 | |
| LC0016 | 0.202 | 0.029 | 97.3 | -0.23 | |

### Characteristics of parameter

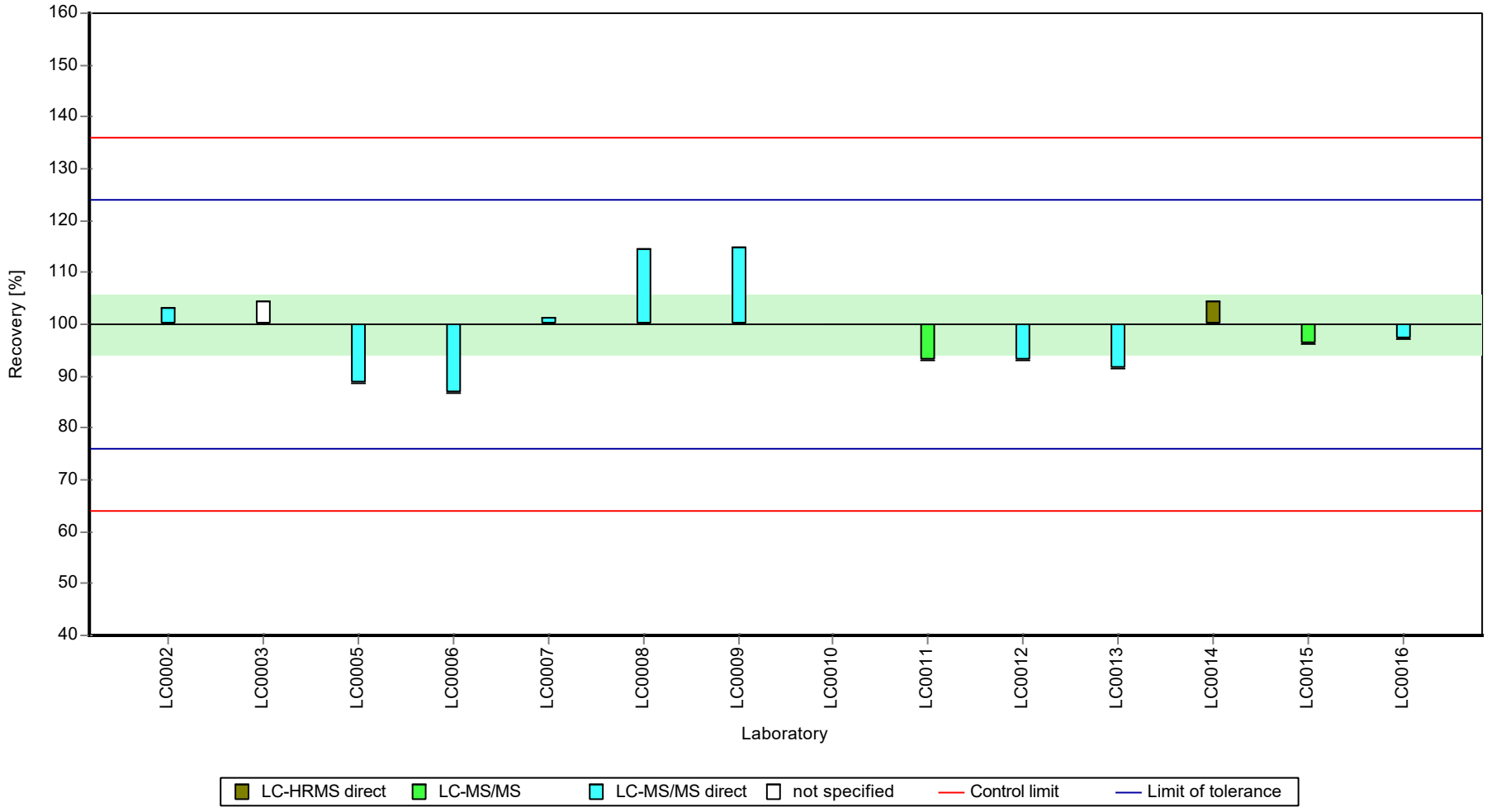
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± Cl (99%) | 0.206 ± 0.0145 | 0.206 ± 0.0145 | µg/l |
| Minimum | 0.18 | 0.18 | µg/l |
| Maximum | 0.239 | 0.239 | µg/l |
| Standard deviation | 0.018 | 0.018 | µg/l |
| rel. standard deviation | 8.76 | 8.76 | % |
| n | 14 | 14 | - |

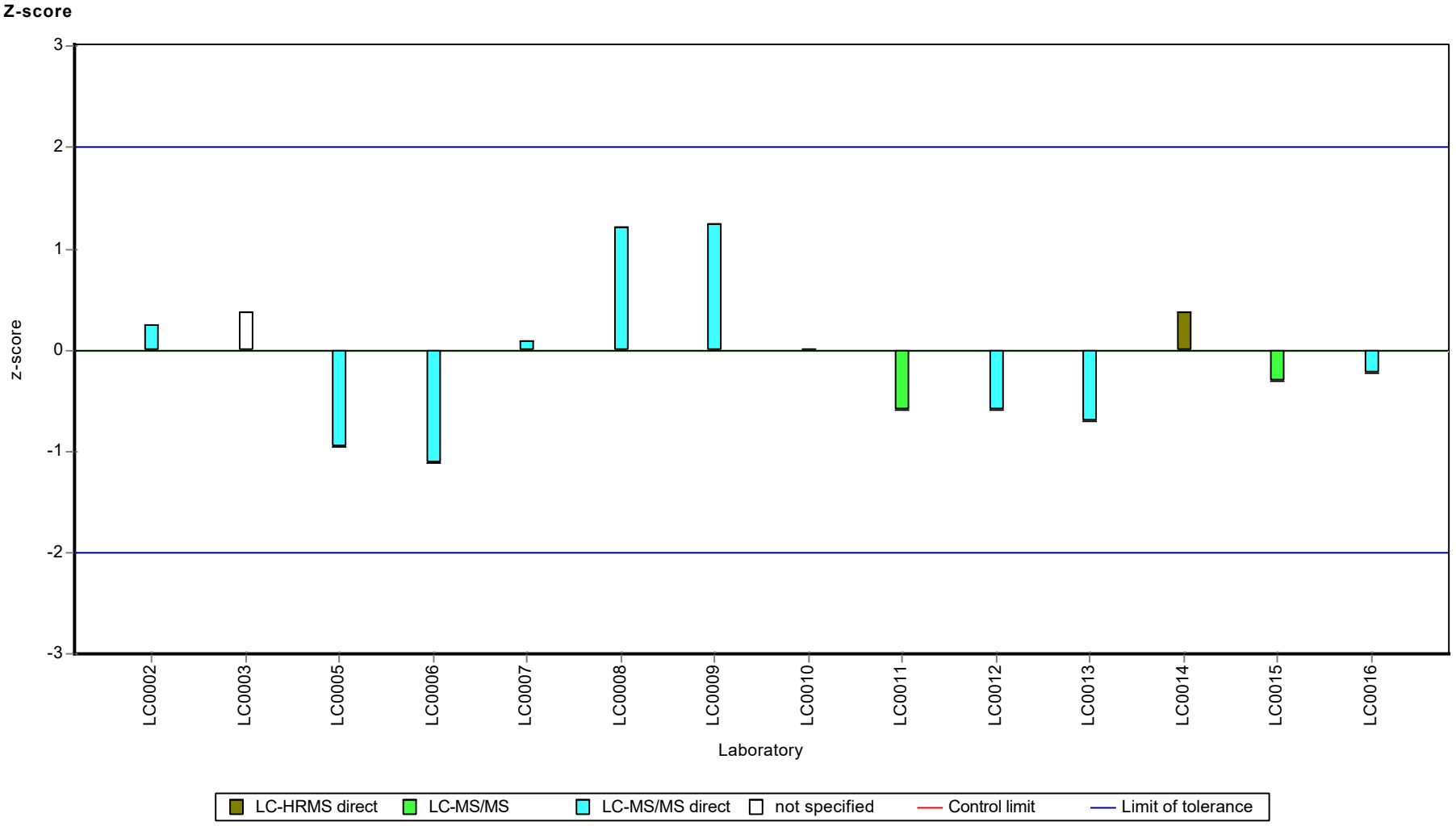
**Graphical presentation of results**

**Results**



**Recovery rate**




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0002
LC0003
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
Laboratory
LC-HRMS direct
LC-MS/MS
LC-MS/MS direct
not specified
Control limit
Limit of tolerance

# Parameter oriented report

## AZ7 B

## Sulfamethoxazole

| | |
|---|---|
| Unit | µg/l |
| Assigned value ± U (k=2) | 0.0444 ± 0.00343 |
| Criterion | 0.00532 (12 %) |
| Minimum - Maximum | 0.0295 - 0.05 |
| Control test value ± U (k=2) | 0.0284 ± 0.00426 |

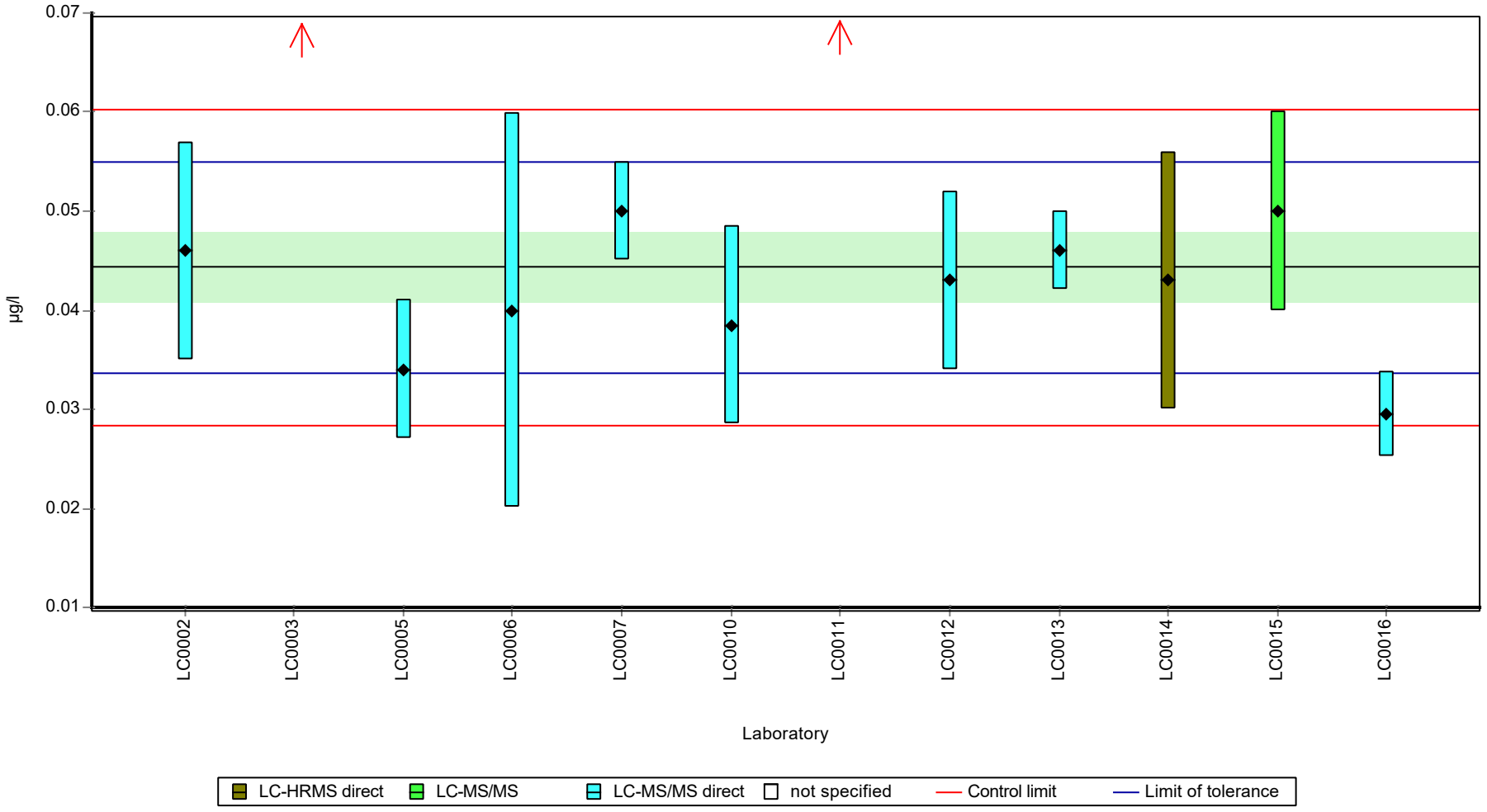
| Labcode | Result | ± U | Recovery [%] | z-score | Comments |
|---|---|---|---|---|---|
| LC0001 | - | - | - | - | |
| LC0002 | 0.046 | 0.011 | 104 | 0.31 | |
| LC0003 | 0.076 | 0.015 | 171 | 5.94 | H |
| LC0004 | - | - | - | - | |
| LC0005 | 0.034 | 0.007 | 76.7 | -1.95 | |
| LC0006 | 0.04 | 0.02 | 90.2 | -0.82 | |
| LC0007 | 0.05 | 0.005 | 113 | 1.06 | |
| LC0008 | - | - | - | - | |
| LC0009 | < 0.05 (LOQ) | - | - | - | |
| LC0010 | 0.0385 | 0.01 | 86.8 | -1.1 | |
| LC0011 | 0.096 | 0.019 | 216 | 9.7 | H |
| LC0012 | 0.043 | 0.009 | 96.9 | -0.26 | |
| LC0013 | 0.046 | 0.004 | 104 | 0.31 | |
| LC0014 | 0.043 | 0.013 | 96.9 | -0.26 | |
| LC0015 | 0.05 | 0.01 | 113 | 1.06 | |
| LC0016 | 0.0295 | 0.0043 | 66.5 | -2.79 | |

### Characteristics of parameter

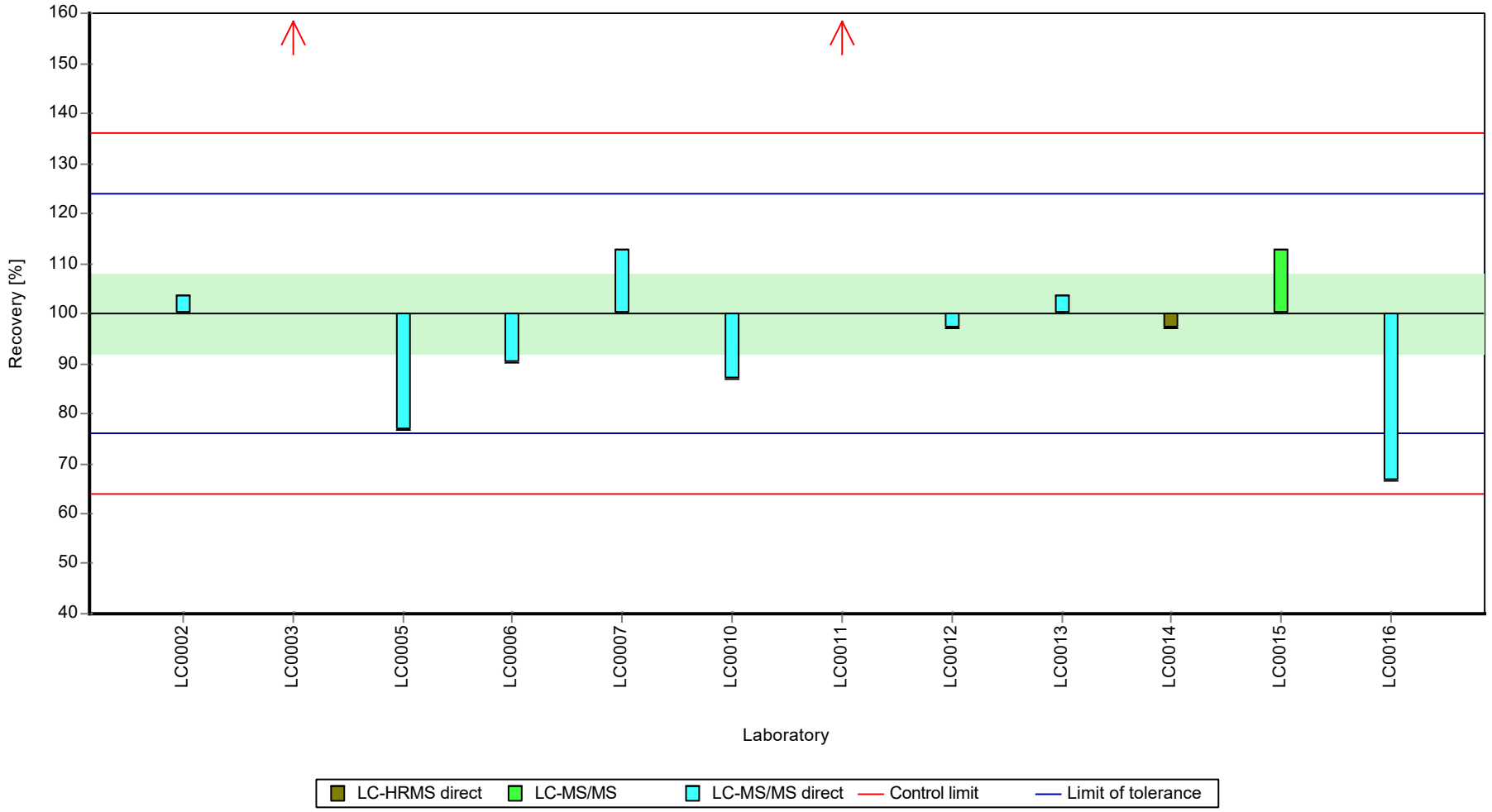
| | all results | without outliers | Unit |
|---|---|---|---|
| Mean ± CI (99%) | 0.0493 ± 0.0161 | 0.042 ± 0.00631 | µg/l |
| Minimum | 0.0295 | 0.0295 | µg/l |
| Maximum | 0.096 | 0.05 | µg/l |
| Standard deviation | 0.0186 | 0.00665 | µg/l |
| rel. standard deviation | 37.8 | 15.8 | % |
| n | 12 | 10 | - |

**Graphical presentation of results**

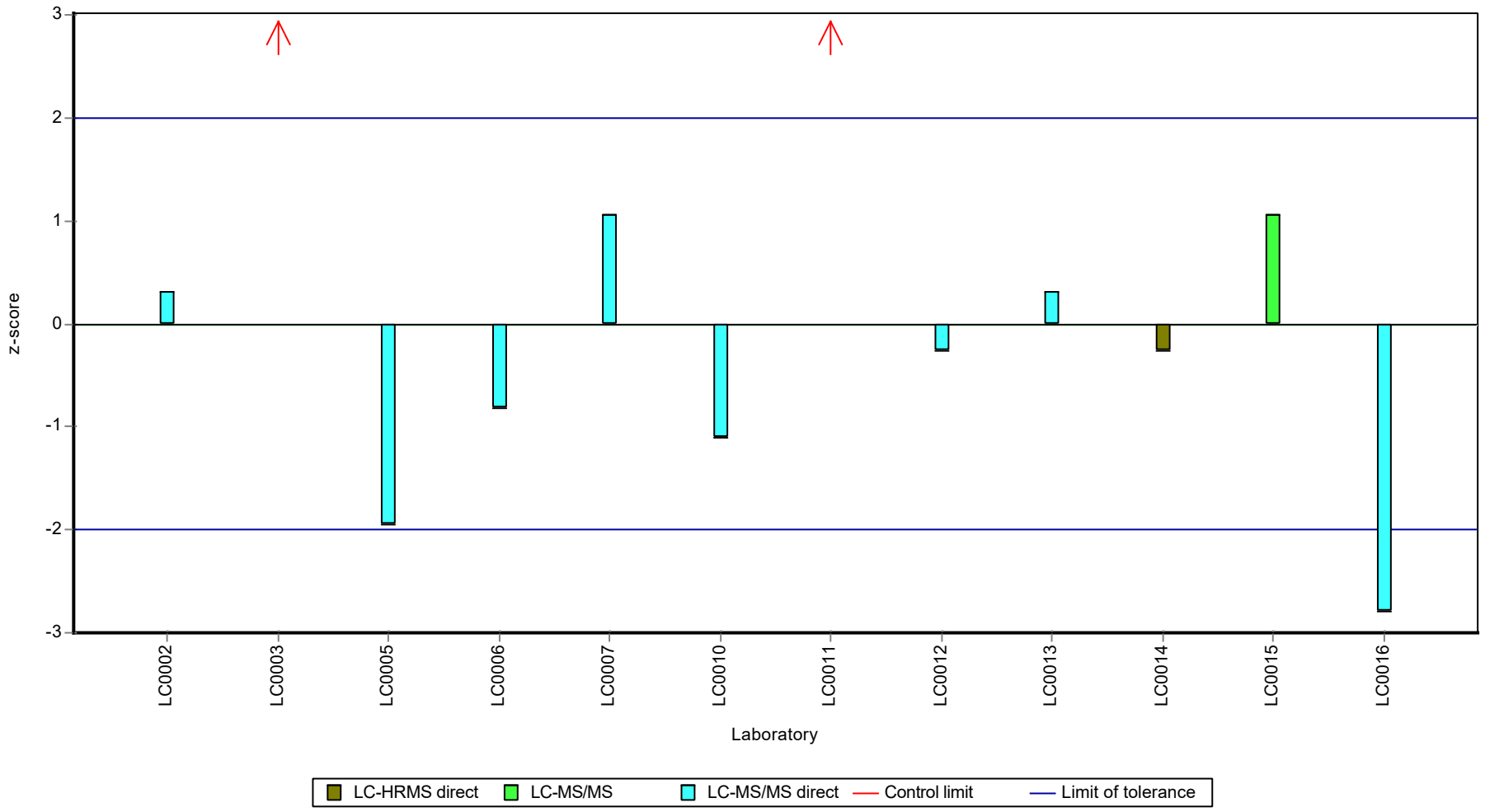
**Results**



**Recovery rate**



**Z-score**


3
2
1
0
-1
-2
-3
z-score
LC0002
LC0003
LC0005
LC0006
LC0007
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
Laboratory
LC-HRMS direct
LC-MS/MS
LC-MS/MS direct
Control limit
Limit of tolerance

# E8. Labororientierte Auswertung / Laboratory oriented report

The laboratory oriented report is sorted by laboratory code.

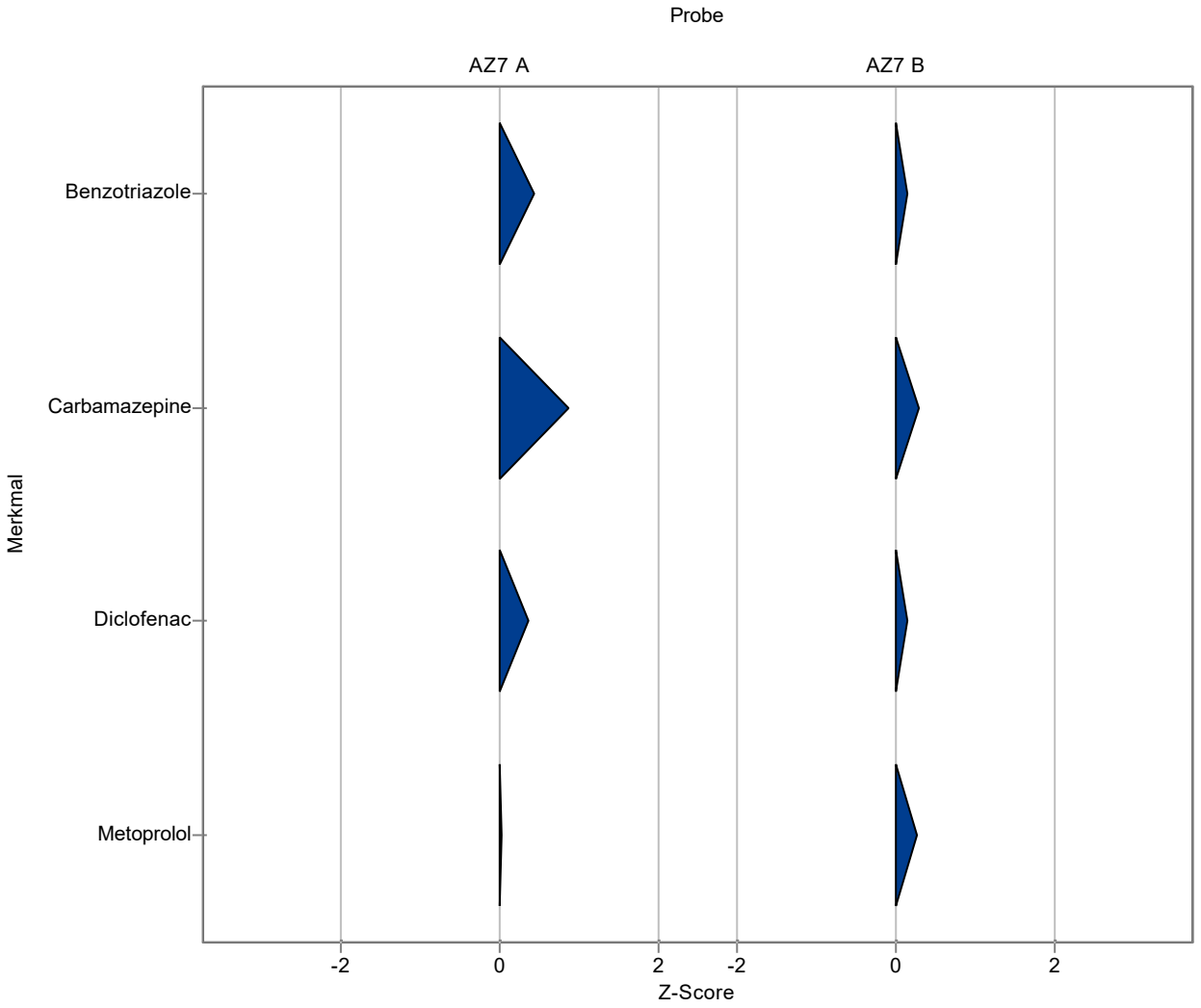
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | - ± - | 0.0067 | - | - |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | - ± - | 0.0175 | - | - |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | - ± - | 0.0112 | - | - |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | - ± - | 0.0876 | - | - |
| Atenolol | µg/l | 0.316 ± 0.0247 | - ± - | 0.0349 | - | - |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.155 ± 0.012 | 0.0177 | 105 | 0.44 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.335 ± 0.028 | 0.0391 | 111 | 0.88 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | - ± - | 0.00533 | - | - |
| Diazepam | µg/l | - ± - | - ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.241 ± 0.027 | 0.0321 | 105 | 0.37 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | - ± - | 0.0226 | - | - |
| Iopamidol | µg/l | 0.314 ± 0.0414 | - ± - | 0.0687 | - | - |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.148 ± 0.01 | 0.0368 | 100 | 0.02 |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | - ± - | 0.0368 | - | - |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | - ± - | 0.0249 | - | - |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | - ± - | 0.592 | - | - |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | - ± - | 0.336 | - | - |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | - ± - | 0.378 | - | - |
| Atenolol | µg/l | 0.377 ± 0.0648 | - ± - | 0.0792 | - | - |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 11.295 ± 0.904 | 1.33 | 102 | 0.14 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.443 ± 0.038 | 0.0554 | 104 | 0.30 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | - ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.896 ± 0.319 | 0.398 | 102 | 0.14 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | - ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | - ± - | 11.3 | - | - |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.251 ± 0.017 | 0.0587 | 107 | 0.28 |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | - ± - | 0.0452 | - | - |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | - ± - | 0.00532 | - | - |


Probe
AZ7 A
AZ7 B
Benzotriazole
Carbamazepine
Diclofenac
Metoprolol
Merkmal
-2
0
2
-2
0
2
Z-Score

## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | - ± - | 0.0067 | - | - |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | - ± - | 0.0175 | - | - |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | - ± - | 0.0112 | - | - |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | - ± - | 0.0876 | - | - |
| Atenolol | µg/l | 0.316 ± 0.0247 | - ± - | 0.0349 | - | - |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.155 ± 0.012 | 0.0177 | 105 | 0.30 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.335 ± 0.028 | 0.0391 | 111 | 0.60 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | - ± - | 0.00533 | - | - |
| Diazepam | µg/l | - ± - | - ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.241 ± 0.027 | 0.0321 | 105 | 0.21 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | - ± - | 0.0226 | - | - |
| Iopamidol | µg/l | 0.314 ± 0.0414 | - ± - | 0.0687 | - | - |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.148 ± 0.01 | 0.0368 | 100 | 0.03 |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | - ± - | 0.0368 | - | - |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | - ± - | 0.0249 | - | - |

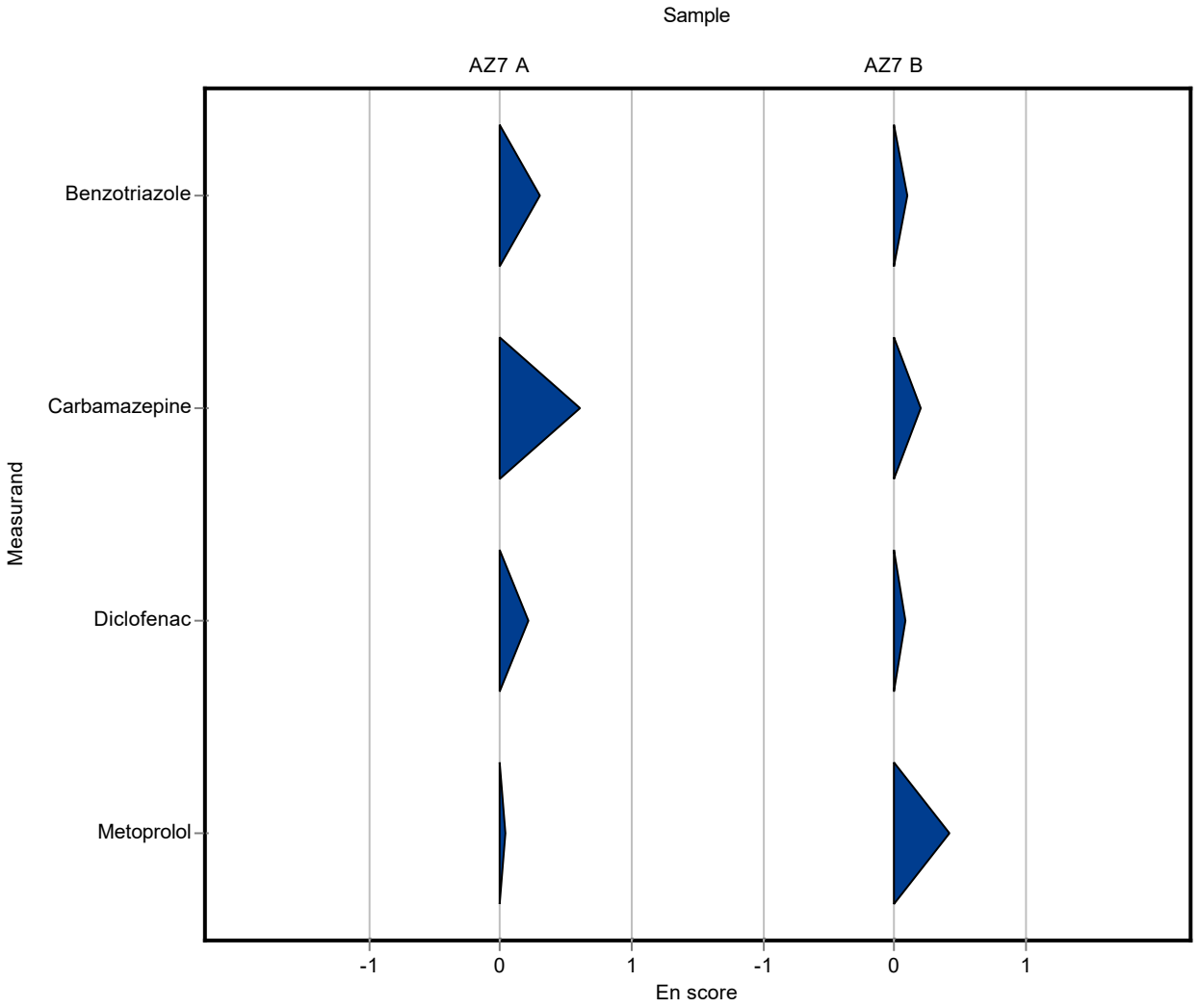
## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | - ± - | 0.592 | - | - |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | - ± - | 0.336 | - | - |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | - ± - | 0.378 | - | - |
| Atenolol | µg/l | 0.377 ± 0.0648 | - ± - | 0.0792 | - | - |

Summary of results Pharmaceuticals, Industrial Chemicals and Artificial Sweeteners - AZ7 En-score

Labcode: LC0001

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 11.295 ± 0.904 | 1.33 | 102 | 0.10 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.443 ± 0.038 | 0.0554 | 104 | 0.20 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | - ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.896 ± 0.319 | 0.398 | 102 | 0.09 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | - ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | - ± - | 11.3 | - | - |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.251 ± 0.017 | 0.0587 | 107 | 0.42 |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | - ± - | 0.0452 | - | - |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | - ± - | 0.00532 | - | - |


Sample
AZ7 A
AZ7 B
Benzotriazole
Carbamazepine
Diclofenac
Metoprolol
Measurand
-1
0
1
-1
0
1
En score

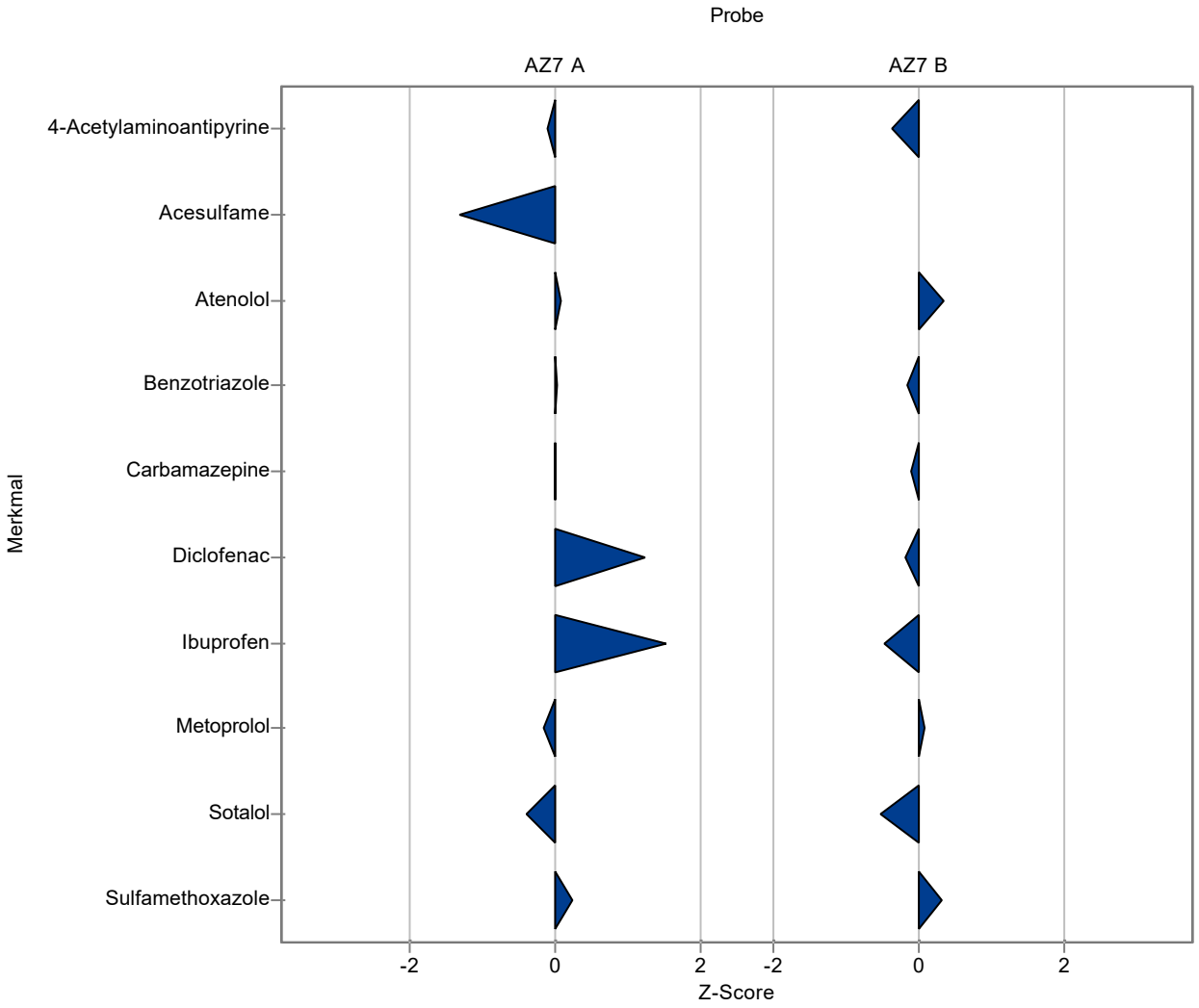
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.04 ± 0.01 | 0.0067 | 98.3 | -0.10 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | - ± - | 0.0175 | - | - |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.051 ± 0.012 | 0.0112 | 77.6 | -1.32 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | - ± - | 0.0876 | - | - |
| Atenolol | µg/l | 0.316 ± 0.0247 | 0.319 ± 0.079 | 0.0349 | 101 | 0.09 |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.148 ± 0.035 | 0.0177 | 100 | 0.04 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.301 ± 0.075 | 0.0391 | 100 | 0.01 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | - ± - | 0.00533 | - | - |
| Diazepam | µg/l | - ± - | - ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.269 ± 0.055 | 0.0321 | 117 | 1.24 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.306 ± 0.076 | 0.0226 | 113 | 1.52 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | - ± - | 0.0687 | - | - |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.142 ± 0.035 | 0.0368 | 96.4 | -0.14 |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.153 ± 0.038 | 0.0368 | 91.5 | -0.39 |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.214 ± 0.053 | 0.0249 | 103 | 0.25 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | 4.172 ± 0.8 | 0.592 | 94.9 | -0.38 |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | - ± - | 0.336 | - | - |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | - ± - | 0.378 | - | - |
| Atenolol | µg/l | 0.377 ± 0.0648 | 0.404 ± 0.1 | 0.0792 | 107 | 0.34 |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 10.89 ± 2.7 | 1.33 | 98 | -0.17 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.42 ± 0.1 | 0.0554 | 98.5 | -0.11 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | - ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.768 ± 0.69 | 0.398 | 97.4 | -0.18 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | 0.078 ± 0.02 | 0.0117 | 93.4 | -0.47 |
| Iopamidol | µg/l | 32.8 ± 7.95 | - ± - | 11.3 | - | - |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.239 ± 0.06 | 0.0587 | 102 | 0.07 |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.182 ± 0.046 | 0.0452 | 88.6 | -0.52 |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.046 ± 0.011 | 0.00532 | 104 | 0.31 |


Probe
AZ7 A
AZ7 B
4-Acetylaminoantipyrine
Acesulfame
Atenolol
Benzotriazole
Carbamazepine
Diclofenac
Ibuprofen
Metoprolol
Sotalol
Sulfamethoxazole
Merkmal
-2
0
2
-2
0
2
Z-Score

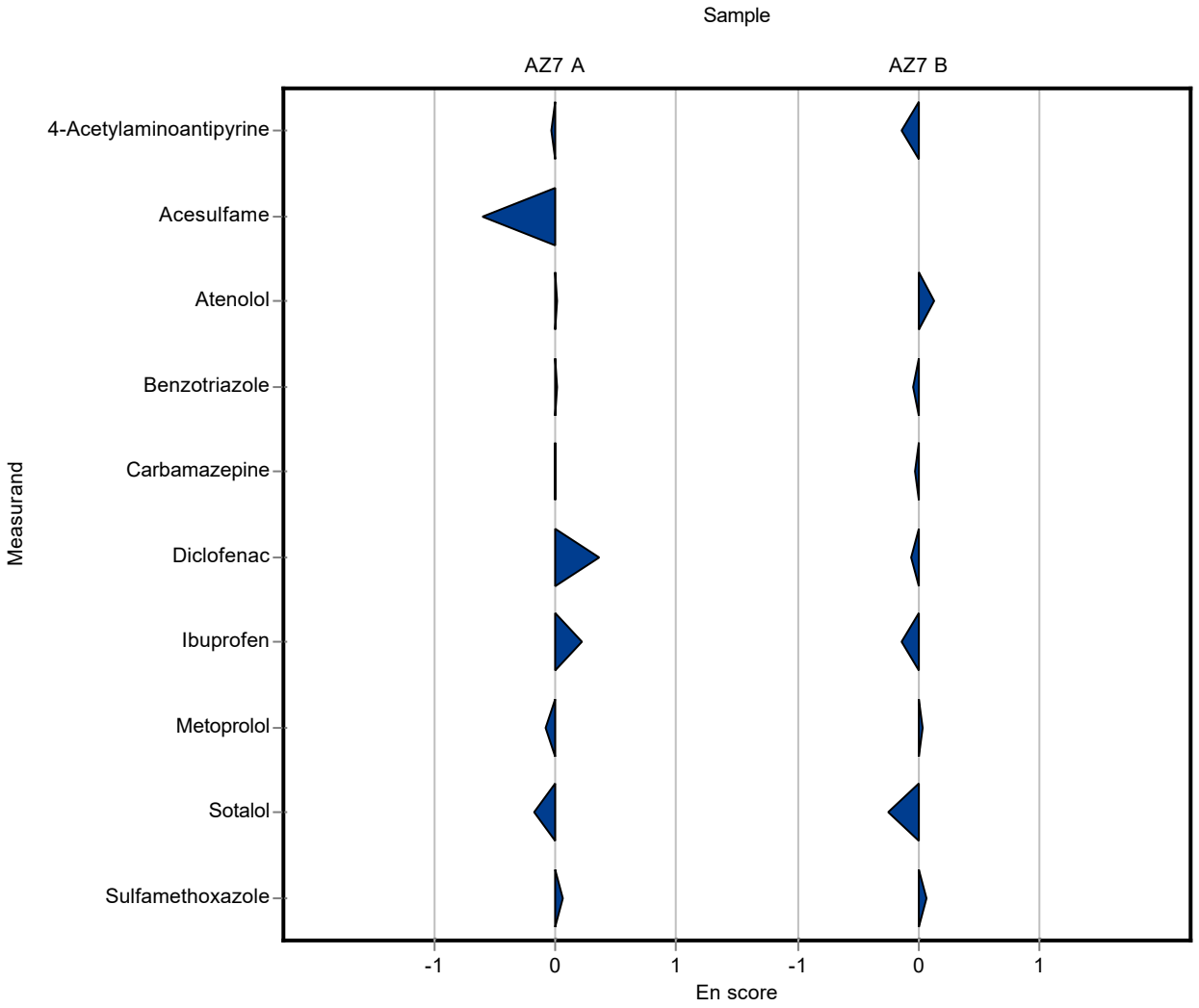
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.04 ± 0.01 | 0.0067 | 98.3 | -0.03 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | - ± - | 0.0175 | - | - |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.051 ± 0.012 | 0.0112 | 77.6 | -0.60 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | - ± - | 0.0876 | - | - |
| Atenolol | µg/l | 0.316 ± 0.0247 | 0.319 ± 0.079 | 0.0349 | 101 | 0.02 |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.148 ± 0.035 | 0.0177 | 100 | 0.01 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.301 ± 0.075 | 0.0391 | 100 | 0.00 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | - ± - | 0.00533 | - | - |
| Diazepam | µg/l | - ± - | - ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.269 ± 0.055 | 0.0321 | 117 | 0.36 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.306 ± 0.076 | 0.0226 | 113 | 0.23 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | - ± - | 0.0687 | - | - |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.142 ± 0.035 | 0.0368 | 96.4 | -0.07 |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.153 ± 0.038 | 0.0368 | 91.5 | -0.18 |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.214 ± 0.053 | 0.0249 | 103 | 0.06 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | 4.172 ± 0.8 | 0.592 | 94.9 | -0.14 |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | - ± - | 0.336 | - | - |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | - ± - | 0.378 | - | - |
| Atenolol | µg/l | 0.377 ± 0.0648 | 0.404 ± 0.1 | 0.0792 | 107 | 0.13 |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 10.89 ± 2.7 | 1.33 | 98 | -0.04 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.42 ± 0.1 | 0.0554 | 98.5 | -0.03 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | - ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.768 ± 0.69 | 0.398 | 97.4 | -0.05 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | 0.078 ± 0.02 | 0.0117 | 93.4 | -0.13 |
| Iopamidol | µg/l | 32.8 ± 7.95 | - ± - | 11.3 | - | - |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.239 ± 0.06 | 0.0587 | 102 | 0.03 |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.182 ± 0.046 | 0.0452 | 88.6 | -0.25 |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.046 ± 0.011 | 0.00532 | 104 | 0.07 |


Sample
AZ7 A
AZ7 B
4-Acetylaminoantipyrine
Acesulfame
Atenolol
Benzotriazole
Carbamazepine
Diclofenac
Ibuprofen
Metoprolol
Sotalol
Sulfamethoxazole
Measurand
-1
0
1
-1
0
1
En score

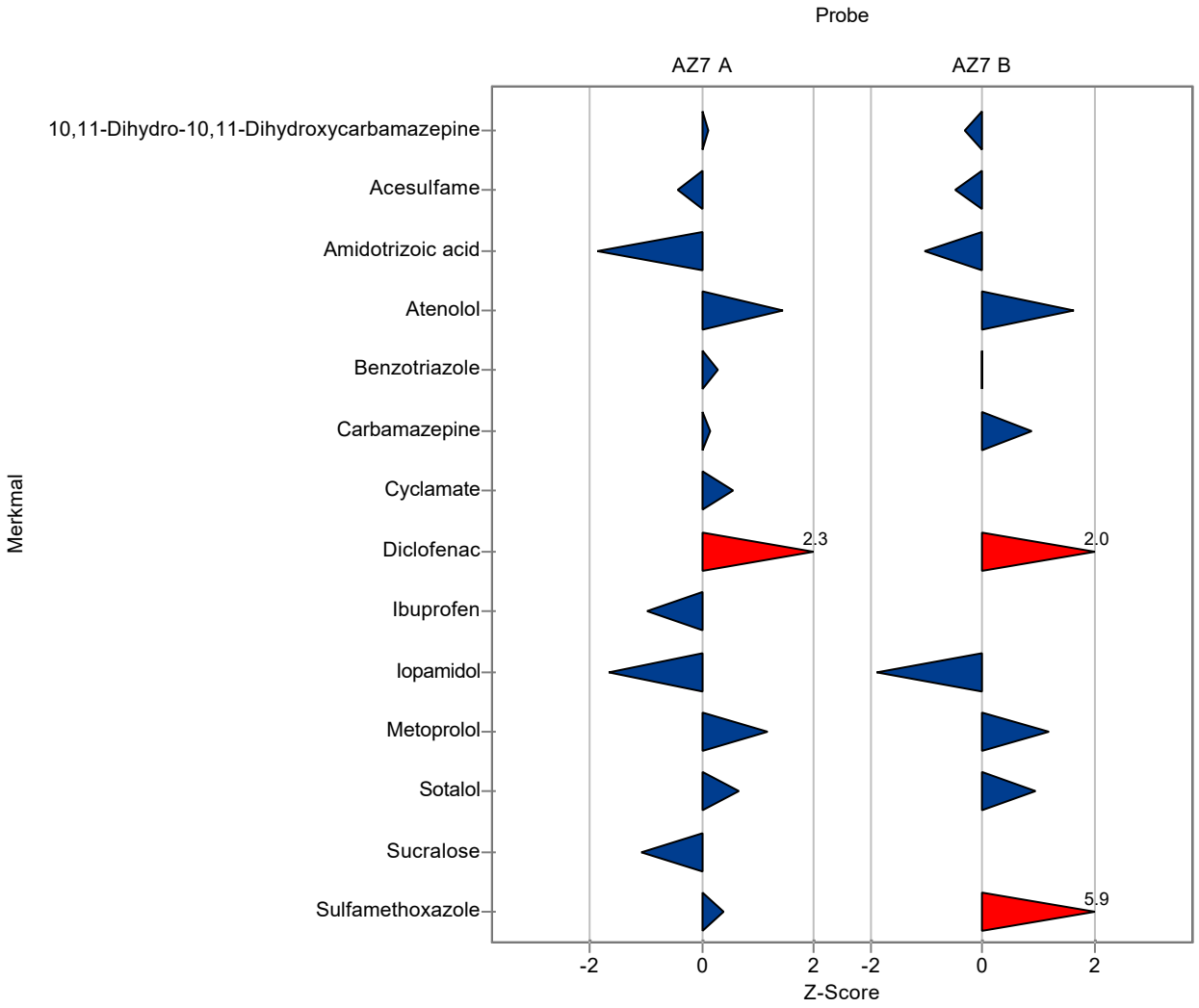
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | - ± - | 0.0067 | - | - |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | 0.086 ± 0.017 | 0.0175 | 102 | 0.10 |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.061 ± 0.012 | 0.0112 | 92.8 | -0.42 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.301 ± 0.06 | 0.0876 | 64.9 | -1.86 |
| Atenolol | µg/l | 0.316 ± 0.0247 | 0.366 ± 0.073 | 0.0349 | 116 | 1.43 |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.152 ± 0.03 | 0.0177 | 103 | 0.27 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.307 ± 0.061 | 0.0391 | 102 | 0.16 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.034 ± 0.007 | 0.00533 | 109 | 0.54 |
| Diazepam | µg/l | - ± - | - ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.302 ± 0.06 | 0.0321 | 132 | 2.27 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.249 ± 0.05 | 0.0226 | 91.7 | -1.00 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.199 ± 0.04 | 0.0687 | 63.5 | -1.67 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.19 ± 0.038 | 0.0368 | 129 | 1.16 |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.191 ± 0.038 | 0.0368 | 114 | 0.65 |
| Sucralose | µg/l | 0.337 ± 0.0483 | 0.226 ± 0.045 | 0.101 | 67.1 | -1.10 |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.217 ± 0.043 | 0.0249 | 104 | 0.37 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | - ± - | 0.592 | - | - |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | 0.972 ± 0.194 | 0.258 | 92 | -0.33 |
| Acesulfame | µg/l | 1.97 ± 0.102 | 1.81 ± 0.362 | 0.336 | 91.7 | -0.49 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 0.696 ± 0.139 | 0.378 | 64.1 | -1.03 |
| Atenolol | µg/l | 0.377 ± 0.0648 | 0.506 ± 0.101 | 0.0792 | 134 | 1.62 |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 11.1 ± 2.2 | 1.33 | 99.9 | -0.01 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.475 ± 0.095 | 0.0554 | 111 | 0.88 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | <0.02 (LOQ) ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | 3.65 ± 0.73 | 0.398 | 128 | 2.04 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | <0.05 (LOQ) ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | 11.4 ± 2.29 | 11.3 | 34.7 | -1.89 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.305 ± 0.061 | 0.0587 | 130 | 1.19 |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.248 ± 0.05 | 0.0452 | 121 | 0.94 |
| Sucralose | µg/l | - ± - | 6.52 ± 1.3 | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.076 ± 0.015 | 0.00532 | 171 | 5.94 |


Probe
AZ7 A
AZ7 B
10,11-Dihydro-10,11-Dihydroxycarbamazepine
Acesulfame
Amidotrizoic acid
Atenolol
Benzotriazole
Carbamazepine
Cyclamate
Diclofenac
Ibuprofen
Iopamidol
Metoprolol
Sotalol
Sucralose
Sulfamethoxazole
Merkmal
2.3
2.0
5.9
-2
0
2
-2
0
2
Z-Score

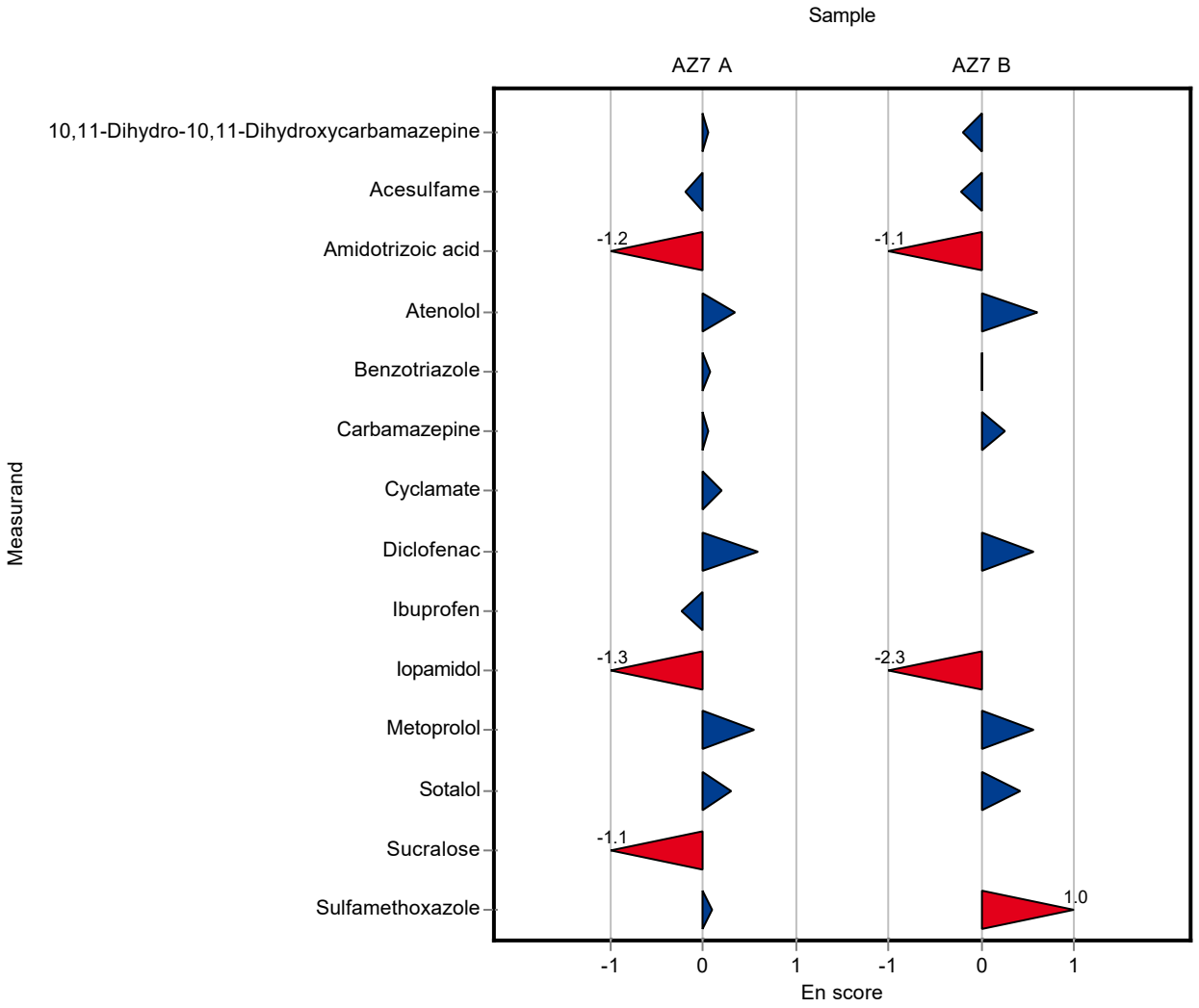
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | - ± - | 0.0067 | - | - |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | 0.086 ± 0.017 | 0.0175 | 102 | 0.05 |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.061 ± 0.012 | 0.0112 | 92.8 | -0.19 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.301 ± 0.06 | 0.0876 | 64.9 | -1.20 |
| Atenolol | µg/l | 0.316 ± 0.0247 | 0.366 ± 0.073 | 0.0349 | 116 | 0.34 |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.152 ± 0.03 | 0.0177 | 103 | 0.08 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.307 ± 0.061 | 0.0391 | 102 | 0.05 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.034 ± 0.007 | 0.00533 | 109 | 0.20 |
| Diazepam | µg/l | - ± - | - ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.302 ± 0.06 | 0.0321 | 132 | 0.60 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.249 ± 0.05 | 0.0226 | 91.7 | -0.22 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.199 ± 0.04 | 0.0687 | 63.5 | -1.27 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.19 ± 0.038 | 0.0368 | 129 | 0.56 |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.191 ± 0.038 | 0.0368 | 114 | 0.31 |
| Sucralose | µg/l | 0.337 ± 0.0483 | 0.226 ± 0.045 | 0.101 | 67.1 | -1.08 |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.217 ± 0.043 | 0.0249 | 104 | 0.11 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | - ± - | 0.592 | - | - |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | 0.972 ± 0.194 | 0.258 | 92 | -0.19 |
| Acesulfame | µg/l | 1.97 ± 0.102 | 1.81 ± 0.362 | 0.336 | 91.7 | -0.23 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 0.696 ± 0.139 | 0.378 | 64.1 | -1.09 |
| Atenolol | µg/l | 0.377 ± 0.0648 | 0.506 ± 0.101 | 0.0792 | 134 | 0.61 |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 11.1 ± 2.2 | 1.33 | 99.9 | 0.00 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.475 ± 0.095 | 0.0554 | 111 | 0.25 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | <0.02 (LOQ) ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | 3.65 ± 0.73 | 0.398 | 128 | 0.55 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | <0.05 (LOQ) ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | 11.4 ± 2.29 | 11.3 | 34.7 | -2.34 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.305 ± 0.061 | 0.0587 | 130 | 0.57 |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.248 ± 0.05 | 0.0452 | 121 | 0.41 |
| Sucralose | µg/l | - ± - | 6.52 ± 1.3 | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.076 ± 0.015 | 0.00532 | 171 | 1.05 |


Sample
AZ7 A
AZ7 B
Measurand
10,11-Dihydro-10,11-Dihydroxycarbamazepine
Acesulfame
Amidotrizoic acid
Atenolol
Benzotriazole
Carbamazepine
Cyclamate
Diclofenac
Ibuprofen
Iopamidol
Metoprolol
Sotalol
Sucralose
Sulfamethoxazole
-1.2
-1.1
-1.3
-2.3
-1.1
1.0
-1
0
1
-1
0
1
En score

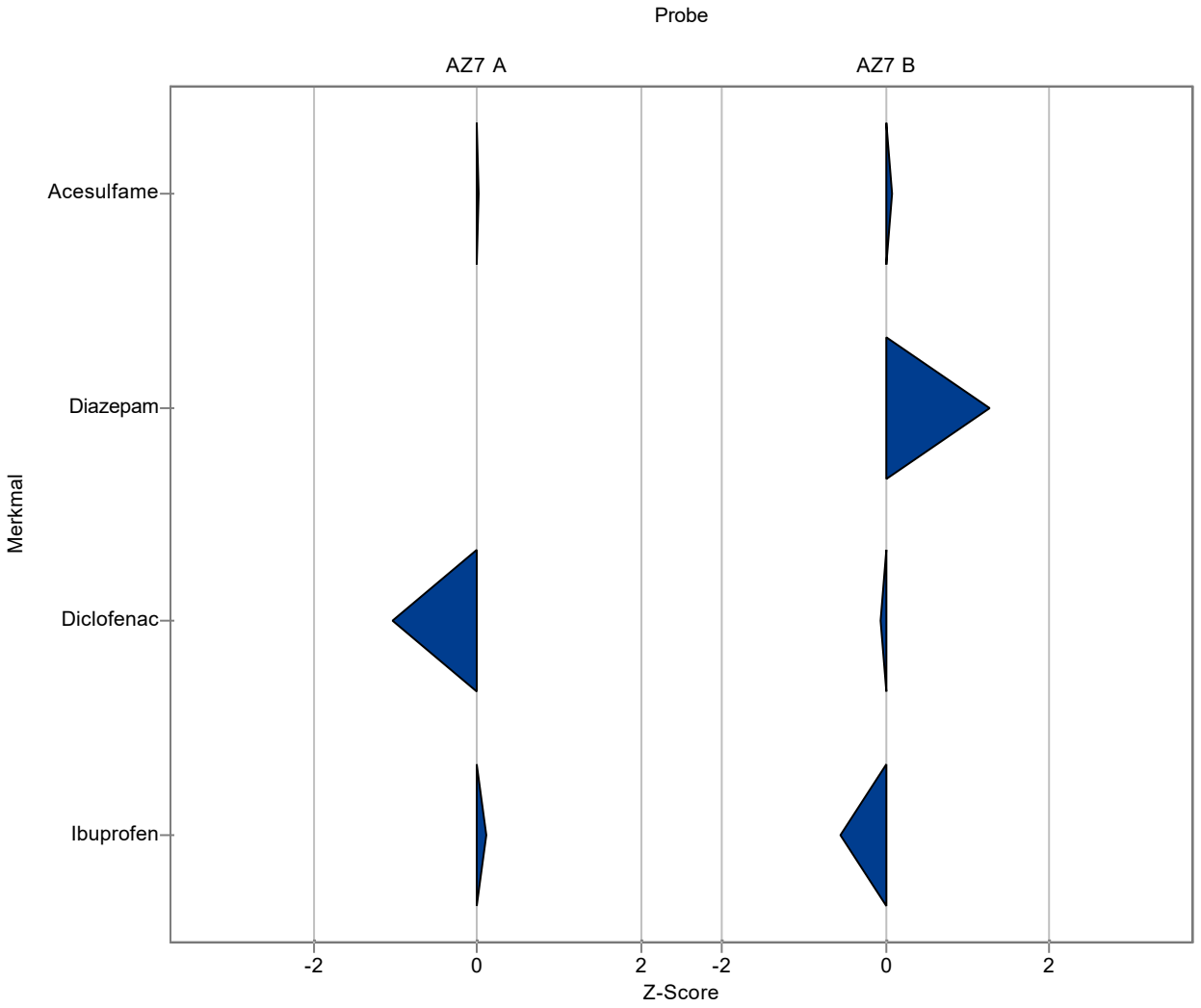
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | - ± - | 0.0067 | - | - |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | - ± - | 0.0175 | - | - |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.066 ± 0.01 | 0.0112 | 100 | 0.03 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | - ± - | 0.0876 | - | - |
| Atenolol | µg/l | 0.316 ± 0.0247 | - ± - | 0.0349 | - | - |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | - ± - | 0.0177 | - | - |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | - ± - | 0.0391 | - | - |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | - ± - | 0.00533 | - | - |
| Diazepam | µg/l | - ± - | <0.03 (LOQ) ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.196 ± 0.029 | 0.0321 | 85.5 | -1.03 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.274 ± 0.041 | 0.0226 | 101 | 0.10 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | - ± - | 0.0687 | - | - |
| Metoprolol | µg/l | 0.147 ± 0.0105 | - ± - | 0.0368 | - | - |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | - ± - | 0.0368 | - | - |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | - ± - | 0.0249 | - | - |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | - ± - | 0.592 | - | - |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | 2 ± 0.3 | 0.336 | 101 | 0.07 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | - ± - | 0.378 | - | - |
| Atenolol | µg/l | 0.377 ± 0.0648 | - ± - | 0.0792 | - | - |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | - ± - | 1.33 | - | - |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | - ± - | 0.0554 | - | - |
| Cyclamate | µg/l | 0.276 ± 0.0279 | - ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | 0.46 ± 0.07 | 0.0618 | 120 | 1.26 |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.81 ± 0.422 | 0.398 | 98.9 | -0.08 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | 0.077 ± 0.012 | 0.0117 | 92.2 | -0.56 |
| Iopamidol | µg/l | 32.8 ± 7.95 | - ± - | 11.3 | - | - |
| Metoprolol | µg/l | 0.235 ± 0.0183 | - ± - | 0.0587 | - | - |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | - ± - | 0.0452 | - | - |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | - ± - | 0.00532 | - | - |


Probe
AZ7 A
AZ7 B
Acesulfame
Diazepam
Diclofenac
Ibuprofen
Merkmal
-2
0
2
-2
0
2
Z-Score

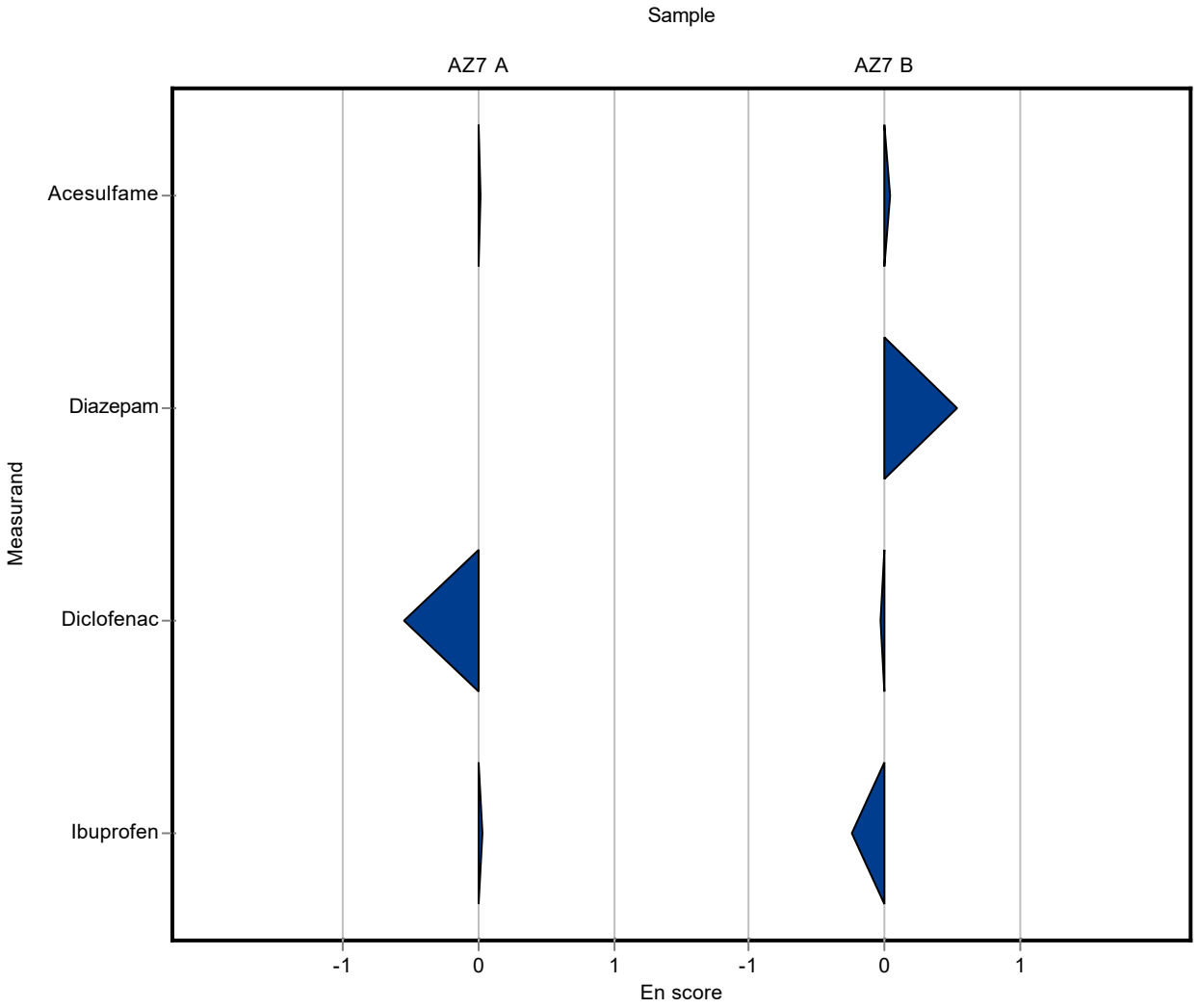
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | - ± - | 0.0067 | - | - |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | - ± - | 0.0175 | - | - |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.066 ± 0.01 | 0.0112 | 100 | 0.01 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | - ± - | 0.0876 | - | - |
| Atenolol | µg/l | 0.316 ± 0.0247 | - ± - | 0.0349 | - | - |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | - ± - | 0.0177 | - | - |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | - ± - | 0.0391 | - | - |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | - ± - | 0.00533 | - | - |
| Diazepam | µg/l | - ± - | <0.03 (LOQ) ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.196 ± 0.029 | 0.0321 | 85.5 | -0.55 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.274 ± 0.041 | 0.0226 | 101 | 0.03 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | - ± - | 0.0687 | - | - |
| Metoprolol | µg/l | 0.147 ± 0.0105 | - ± - | 0.0368 | - | - |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | - ± - | 0.0368 | - | - |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | - ± - | 0.0249 | - | - |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | - ± - | 0.592 | - | - |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | 2 ± 0.3 | 0.336 | 101 | 0.04 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | - ± - | 0.378 | - | - |
| Atenolol | µg/l | 0.377 ± 0.0648 | - ± - | 0.0792 | - | - |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | - ± - | 1.33 | - | - |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | - ± - | 0.0554 | - | - |
| Cyclamate | µg/l | 0.276 ± 0.0279 | - ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | 0.46 ± 0.07 | 0.0618 | 120 | 0.53 |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.81 ± 0.422 | 0.398 | 98.9 | -0.04 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | 0.077 ± 0.012 | 0.0117 | 92.2 | -0.25 |
| Iopamidol | µg/l | 32.8 ± 7.95 | - ± - | 11.3 | - | - |
| Metoprolol | µg/l | 0.235 ± 0.0183 | - ± - | 0.0587 | - | - |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | - ± - | 0.0452 | - | - |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | - ± - | 0.00532 | - | - |


Sample
AZ7 A
AZ7 B
Acesulfame
Diazepam
Diclofenac
Ibuprofen
Measurand
-1
0
1
-1
0
1
En score

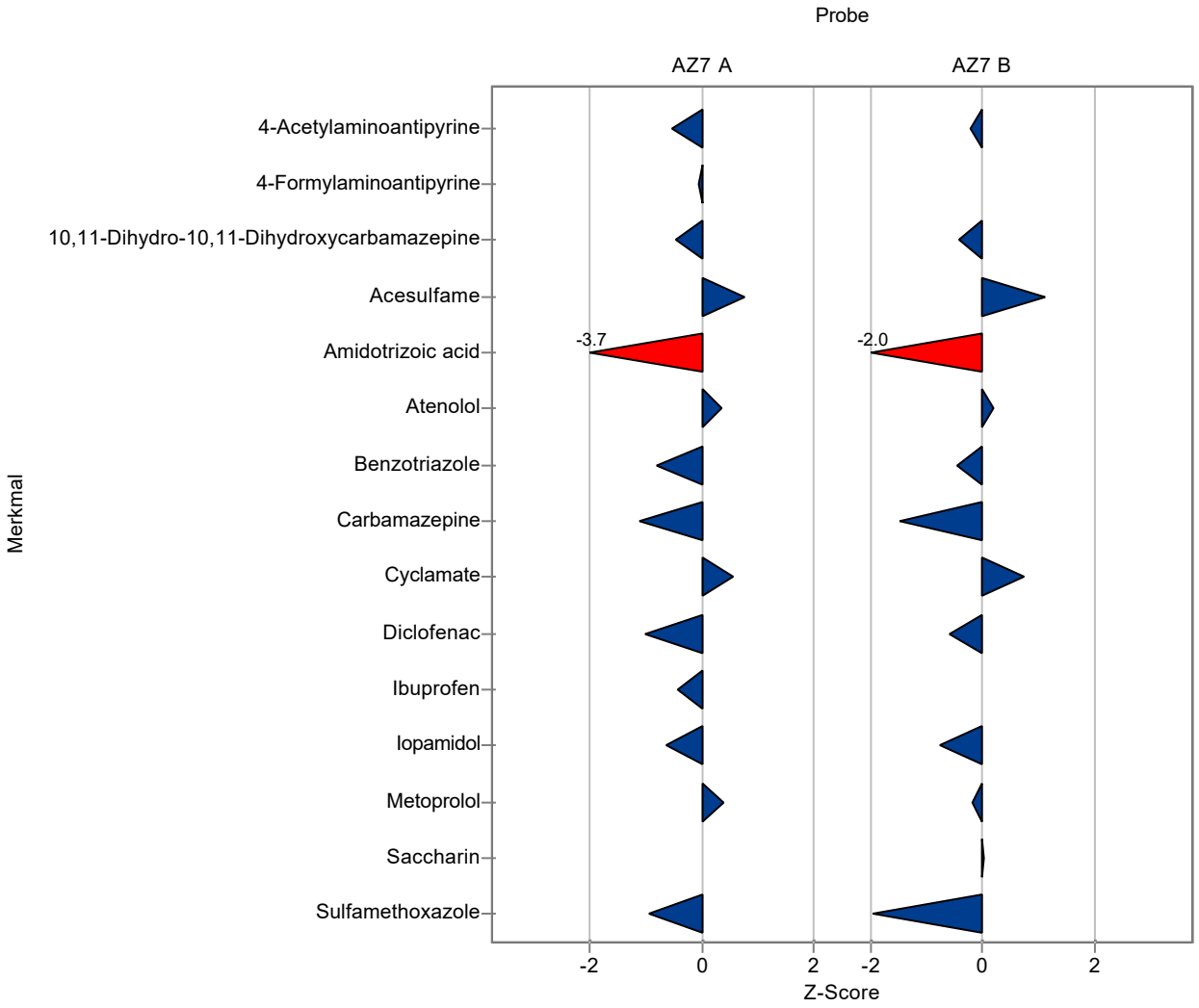
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.037 ± 0.008 | 0.0067 | 91 | -0.55 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | 0.247 ± 0.049 | 0.0385 | 99.1 | -0.06 |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | 0.076 ± 0.015 | 0.0175 | 90.2 | -0.47 |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.074 ± 0.015 | 0.0112 | 113 | 0.74 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.141 ± 0.028 | 0.0876 | 30.4 | -3.69 |
| Atenolol | µg/l | 0.316 ± 0.0247 | 0.328 ± 0.066 | 0.0349 | 104 | 0.35 |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.133 ± 0.027 | 0.0177 | 90.3 | -0.81 |
| Bisoprolol | µg/l | - ± - | 0.132 ± 0.026 | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.257 ± 0.051 | 0.0391 | 85.4 | -1.12 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.034 ± 0.007 | 0.00533 | 109 | 0.54 |
| Diazepam | µg/l | - ± - | - ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.197 ± 0.039 | 0.0321 | 86 | -1.00 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.262 ± 0.052 | 0.0226 | 96.5 | -0.42 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.269 ± 0.054 | 0.0687 | 85.8 | -0.65 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.161 ± 0.032 | 0.0368 | 109 | 0.37 |
| Saccharin | µg/l | - ± - | 0.019 ± 0.004 | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | - ± - | 0.0368 | - | - |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.184 ± 0.037 | 0.0249 | 88.6 | -0.95 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | 4.28 ± 0.86 | 0.592 | 97.3 | -0.20 |
| 4-Formylaminoantipyrine | µg/l | - ± - | 3.3 ± 0.66 | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | 0.947 ± 0.189 | 0.258 | 89.7 | -0.42 |
| Acesulfame | µg/l | 1.97 ± 0.102 | 2.35 ± 0.47 | 0.336 | 119 | 1.12 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 0.319 ± 0.064 | 0.378 | 29.4 | -2.03 |
| Atenolol | µg/l | 0.377 ± 0.0648 | 0.393 ± 0.079 | 0.0792 | 104 | 0.20 |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 10.5 ± 2.1 | 1.33 | 94.5 | -0.46 |
| Bisoprolol | µg/l | - ± - | 0.254 ± 0.051 | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.345 ± 0.069 | 0.0554 | 80.9 | -1.47 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | 0.304 ± 0.061 | 0.0369 | 110 | 0.76 |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.61 ± 0.52 | 0.398 | 91.9 | -0.58 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | <0.02 (LOQ) ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | 24.3 ± 4.9 | 11.3 | 74 | -0.75 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.225 ± 0.045 | 0.0587 | 95.8 | -0.17 |
| Saccharin | µg/l | 1.39 ± 0.0833 | 1.4 ± 0.28 | 0.306 | 101 | 0.03 |
| Sotalol | µg/l | 0.206 ± 0.0241 | - ± - | 0.0452 | - | - |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.034 ± 0.007 | 0.00532 | 76.7 | -1.95 |


Probe
AZ7 A
AZ7 B
4-Acetylaminoantipyrine
4-Formylaminoantipyrine
10,11-Dihydro-10,11-Dihydroxycarbamazepine
Acesulfame
Amidotrizoic acid
Atenolol
Benzotriazole
Carbamazepine
Cyclamate
Diclofenac
Ibuprofen
Iopamidol
Metoprolol
Saccharin
Sulfamethoxazole
-3.7
-2.0
Merkmal
-2
0
2
-2
0
2
Z-Score

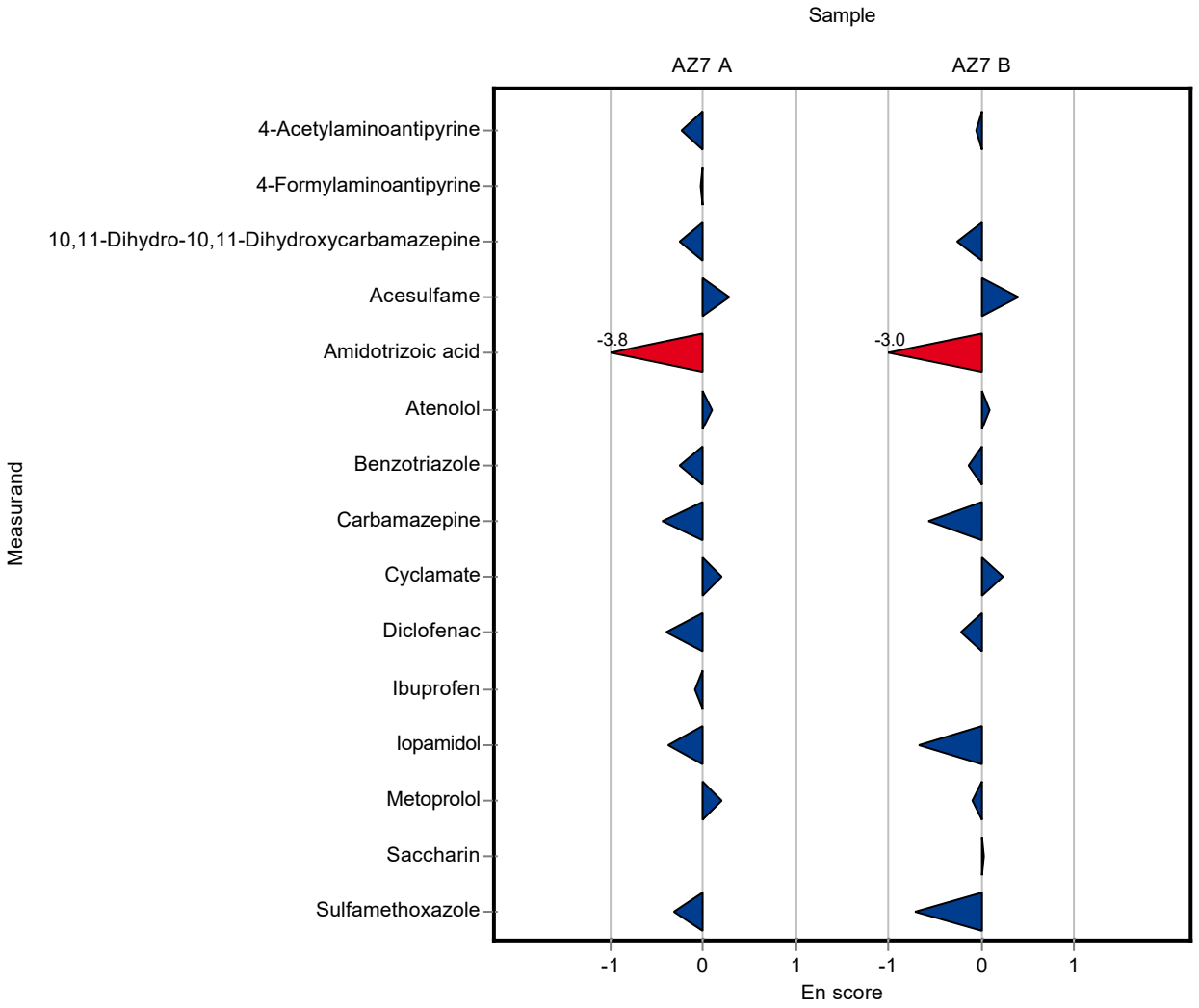
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.037 ± 0.008 | 0.0067 | 91 | -0.22 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | 0.247 ± 0.049 | 0.0385 | 99.1 | -0.02 |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | 0.076 ± 0.015 | 0.0175 | 90.2 | -0.26 |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.074 ± 0.015 | 0.0112 | 113 | 0.27 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.141 ± 0.028 | 0.0876 | 30.4 | -3.81 |
| Atenolol | µg/l | 0.316 ± 0.0247 | 0.328 ± 0.066 | 0.0349 | 104 | 0.09 |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.133 ± 0.027 | 0.0177 | 90.3 | -0.26 |
| Bisoprolol | µg/l | - ± - | 0.132 ± 0.026 | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.257 ± 0.051 | 0.0391 | 85.4 | -0.43 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.034 ± 0.007 | 0.00533 | 109 | 0.20 |
| Diazepam | µg/l | - ± - | - ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.197 ± 0.039 | 0.0321 | 86 | -0.40 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.262 ± 0.052 | 0.0226 | 96.5 | -0.09 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.269 ± 0.054 | 0.0687 | 85.8 | -0.39 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.161 ± 0.032 | 0.0368 | 109 | 0.21 |
| Saccharin | µg/l | - ± - | 0.019 ± 0.004 | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | - ± - | 0.0368 | - | - |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.184 ± 0.037 | 0.0249 | 88.6 | -0.32 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | 4.28 ± 0.86 | 0.592 | 97.3 | -0.07 |
| 4-Formylaminoantipyrine | µg/l | - ± - | 3.3 ± 0.66 | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | 0.947 ± 0.189 | 0.258 | 89.7 | -0.26 |
| Acesulfame | µg/l | 1.97 ± 0.102 | 2.35 ± 0.47 | 0.336 | 119 | 0.40 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 0.319 ± 0.064 | 0.378 | 29.4 | -2.98 |
| Atenolol | µg/l | 0.377 ± 0.0648 | 0.393 ± 0.079 | 0.0792 | 104 | 0.09 |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 10.5 ± 2.1 | 1.33 | 94.5 | -0.14 |
| Bisoprolol | µg/l | - ± - | 0.254 ± 0.051 | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.345 ± 0.069 | 0.0554 | 80.9 | -0.57 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | 0.304 ± 0.061 | 0.0369 | 110 | 0.22 |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.61 ± 0.52 | 0.398 | 91.9 | -0.22 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | <0.02 (LOQ) ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | 24.3 ± 4.9 | 11.3 | 74 | -0.68 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.225 ± 0.045 | 0.0587 | 95.8 | -0.11 |
| Saccharin | µg/l | 1.39 ± 0.0833 | 1.4 ± 0.28 | 0.306 | 101 | 0.01 |
| Sotalol | µg/l | 0.206 ± 0.0241 | - ± - | 0.0452 | - | - |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.034 ± 0.007 | 0.00532 | 76.7 | -0.72 |


Sample
AZ7 A
AZ7 B
4-Acetylaminoantipyrine
4-Formylaminoantipyrine
10,11-Dihydro-10,11-Dihydroxycarbamazepine
Acesulfame
Amidotrizoic acid
Atenolol
Benzotriazole
Carbamazepine
Cyclamate
Diclofenac
Ibuprofen
Iopamidol
Metoprolol
Saccharin
Sulfamethoxazole
Measurand
-3.8
-3.0
-1
0
1
-1
0
1
En score

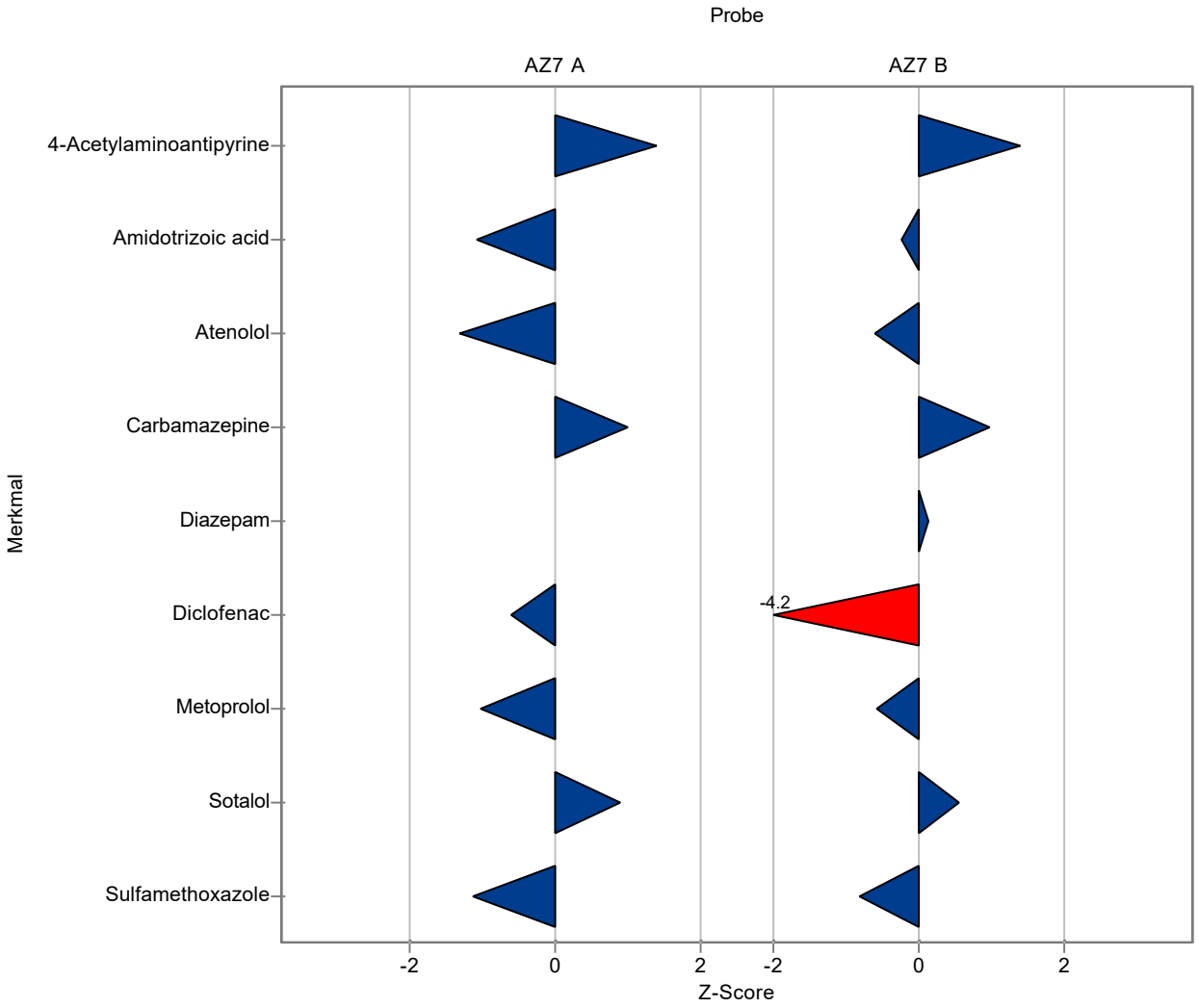
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.05 ± 0.03 | 0.0067 | 123 | 1.39 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | - ± - | 0.0175 | - | - |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | - ± - | 0.0112 | - | - |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.37 ± 0.19 | 0.0876 | 79.8 | -1.07 |
| Atenolol | µg/l | 0.316 ± 0.0247 | 0.27 ± 0.14 | 0.0349 | 85.5 | -1.32 |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | - ± - | 0.0177 | - | - |
| Bisoprolol | µg/l | - ± - | 0.14 ± 0.07 | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.34 ± 0.17 | 0.0391 | 113 | 1.00 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | - ± - | 0.00533 | - | - |
| Diazepam | µg/l | - ± - | <0.02 (LOQ) ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.21 ± 0.11 | 0.0321 | 91.7 | -0.60 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | <10 (LOQ) ± - | 0.0226 | - | - |
| Iopamidol | µg/l | 0.314 ± 0.0414 | - ± - | 0.0687 | - | - |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.11 ± 0.06 | 0.0368 | 74.7 | -1.01 |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.2 ± 0.1 | 0.0368 | 120 | 0.89 |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.18 ± 0.09 | 0.0249 | 86.7 | -1.11 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | 5.22 ± 2.61 | 0.592 | 119 | 1.39 |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | - ± - | 0.336 | - | - |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 0.99 ± 0.5 | 0.378 | 91.1 | -0.25 |
| Atenolol | µg/l | 0.377 ± 0.0648 | 0.33 ± 0.17 | 0.0792 | 87.5 | -0.60 |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | - ± - | 1.33 | - | - |
| Bisoprolol | µg/l | - ± - | 0.29 ± 0.15 | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.48 ± 0.24 | 0.0554 | 113 | 0.97 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | - ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | 0.39 ± 0.2 | 0.0618 | 102 | 0.13 |
| Diclofenac | µg/l | 2.84 ± 0.103 | 1.16 ± 0.58 | 0.398 | 40.8 | -4.23 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | <10 (LOQ) ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | - ± - | 11.3 | - | - |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.2 ± 0.1 | 0.0587 | 85.2 | -0.59 |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.23 ± 0.12 | 0.0452 | 112 | 0.54 |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.04 ± 0.02 | 0.00532 | 90.2 | -0.82 |


Probe
AZ7 A
AZ7 B
4-Acetylaminoantipyrine
Amidotrizoic acid
Atenolol
Carbamazepine
Diazepam
Diclofenac
Metoprolol
Sotalol
Sulfamethoxazole
Merkmal
-4.2
-2
0
2
-2
0
2
Z-Score

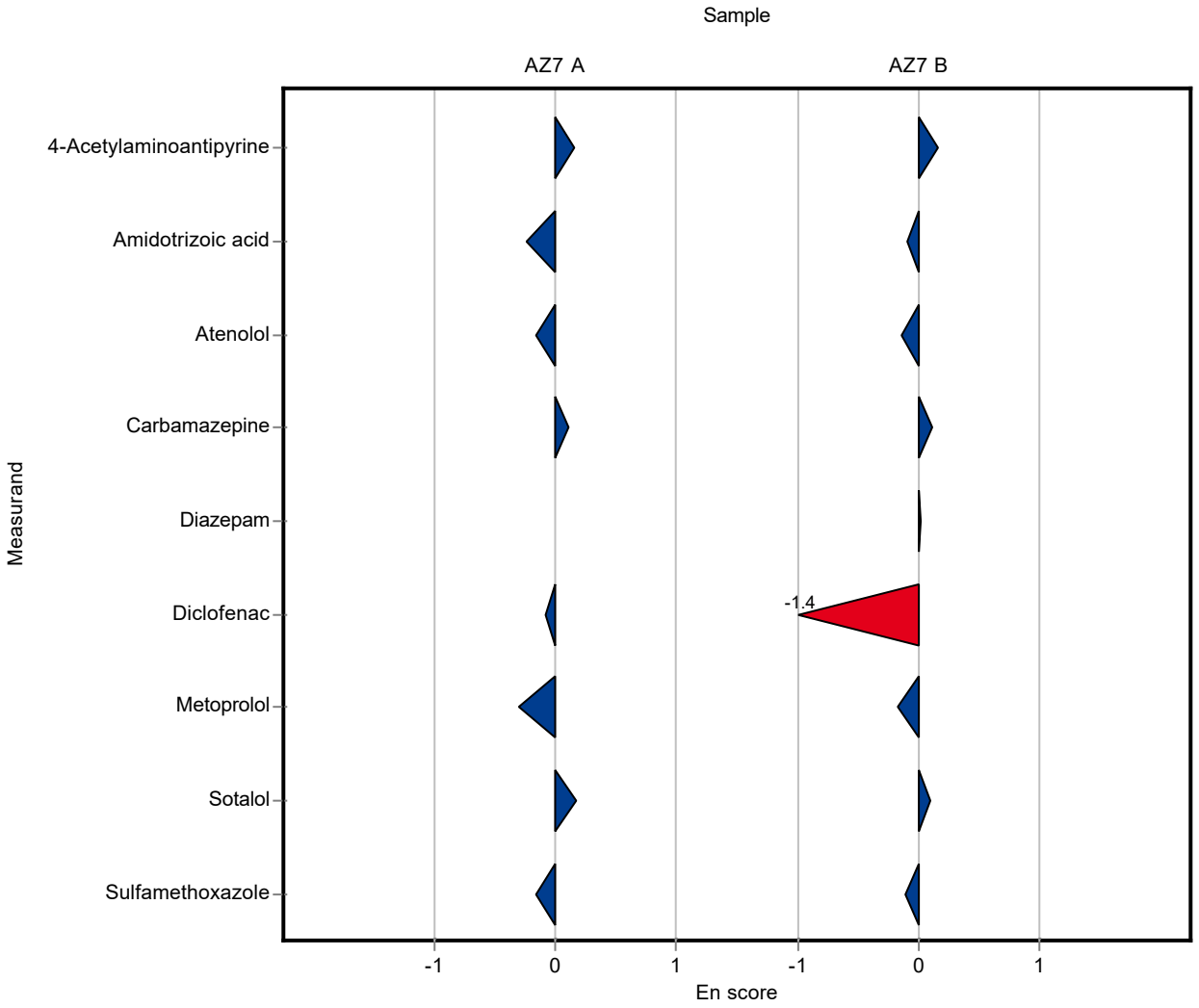
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.05 ± 0.03 | 0.0067 | 123 | 0.15 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | - ± - | 0.0175 | - | - |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | - ± - | 0.0112 | - | - |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.37 ± 0.19 | 0.0876 | 79.8 | -0.24 |
| Atenolol | µg/l | 0.316 ± 0.0247 | 0.27 ± 0.14 | 0.0349 | 85.5 | -0.16 |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | - ± - | 0.0177 | - | - |
| Bisoprolol | µg/l | - ± - | 0.14 ± 0.07 | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.34 ± 0.17 | 0.0391 | 113 | 0.12 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | - ± - | 0.00533 | - | - |
| Diazepam | µg/l | - ± - | <0.02 (LOQ) ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.21 ± 0.11 | 0.0321 | 91.7 | -0.09 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | <10 (LOQ) ± - | 0.0226 | - | - |
| Iopamidol | µg/l | 0.314 ± 0.0414 | - ± - | 0.0687 | - | - |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.11 ± 0.06 | 0.0368 | 74.7 | -0.31 |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.2 ± 0.1 | 0.0368 | 120 | 0.16 |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.18 ± 0.09 | 0.0249 | 86.7 | -0.15 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | 5.22 ± 2.61 | 0.592 | 119 | 0.16 |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | - ± - | 0.336 | - | - |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 0.99 ± 0.5 | 0.378 | 91.1 | -0.09 |
| Atenolol | µg/l | 0.377 ± 0.0648 | 0.33 ± 0.17 | 0.0792 | 87.5 | -0.14 |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | - ± - | 1.33 | - | - |
| Bisoprolol | µg/l | - ± - | 0.29 ± 0.15 | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.48 ± 0.24 | 0.0554 | 113 | 0.11 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | - ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | 0.39 ± 0.2 | 0.0618 | 102 | 0.02 |
| Diclofenac | µg/l | 2.84 ± 0.103 | 1.16 ± 0.58 | 0.398 | 40.8 | -1.44 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | <10 (LOQ) ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | - ± - | 11.3 | - | - |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.2 ± 0.1 | 0.0587 | 85.2 | -0.17 |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.23 ± 0.12 | 0.0452 | 112 | 0.10 |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.04 ± 0.02 | 0.00532 | 90.2 | -0.11 |


Sample
AZ7 A
AZ7 B
4-Acetylaminoantipyrine
Amidotrizoic acid
Atenolol
Carbamazepine
Diazepam
Diclofenac
Metoprolol
Sotalol
Sulfamethoxazole
Measurand
-1.4
-1
0
1
-1
0
1
En score

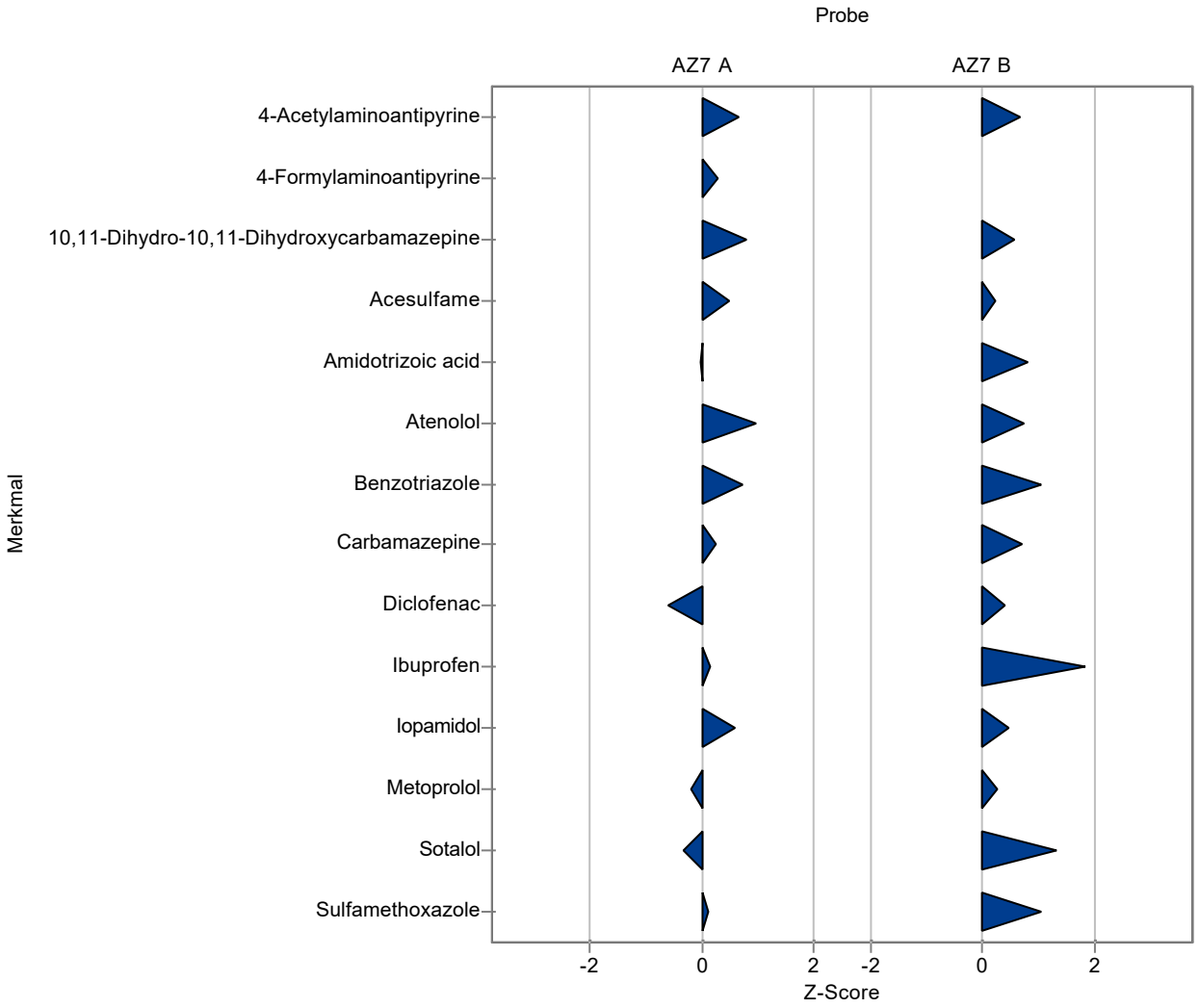
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.045 ± 0.004 | 0.0067 | 111 | 0.65 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | 0.26 ± 0.025 | 0.0385 | 104 | 0.28 |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | 0.098 ± 0.012 | 0.0175 | 116 | 0.78 |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.071 ± 0.011 | 0.0112 | 108 | 0.47 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.46 ± 0.06 | 0.0876 | 99.2 | -0.04 |
| Atenolol | µg/l | 0.316 ± 0.0247 | 0.35 ± 0.022 | 0.0349 | 111 | 0.98 |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.16 ± 0.011 | 0.0177 | 109 | 0.72 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.31 ± 0.027 | 0.0391 | 103 | 0.24 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | - ± - | 0.00533 | - | - |
| Diazepam | µg/l | - ± - | - ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.21 ± 0.02 | 0.0321 | 91.7 | -0.60 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.275 ± 0.033 | 0.0226 | 101 | 0.15 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.355 ± 0.05 | 0.0687 | 113 | 0.60 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.14 ± 0.01 | 0.0368 | 95 | -0.20 |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.155 ± 0.009 | 0.0368 | 92.7 | -0.33 |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.21 ± 0.02 | 0.0249 | 101 | 0.09 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | 4.8 ± 0.455 | 0.592 | 109 | 0.68 |
| 4-Formylaminoantipyrine | µg/l | - ± - | 3.8 ± 0.36 | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | 1.2 ± 0.143 | 0.258 | 114 | 0.56 |
| Acesulfame | µg/l | 1.97 ± 0.102 | 2.05 ± 0.308 | 0.336 | 104 | 0.22 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 1.4 ± 0.182 | 0.378 | 129 | 0.83 |
| Atenolol | µg/l | 0.377 ± 0.0648 | 0.435 ± 0.027 | 0.0792 | 115 | 0.73 |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 12.5 ± 0.883 | 1.33 | 112 | 1.04 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.465 ± 0.041 | 0.0554 | 109 | 0.70 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | - ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | 3 ± 0.27 | 0.398 | 106 | 0.40 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | 0.105 ± 0.013 | 0.0117 | 126 | 1.84 |
| Iopamidol | µg/l | 32.8 ± 7.95 | 38 ± 5.3 | 11.3 | 116 | 0.46 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.25 ± 0.018 | 0.0587 | 106 | 0.26 |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.265 ± 0.015 | 0.0452 | 129 | 1.32 |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.05 ± 0.005 | 0.00532 | 113 | 1.06 |


Probe
AZ7 A
AZ7 B
4-Acetylaminoantipyrine
4-Formylaminoantipyrine
10,11-Dihydro-10,11-Dihydroxycarbamazepine
Acesulfame
Amidotrizoic acid
Atenolol
Benzotriazole
Carbamazepine
Diclofenac
Ibuprofen
Iopamidol
Metoprolol
Sotalol
Sulfamethoxazole
Merkmal
-2
0
2
-2
0
2
Z-Score

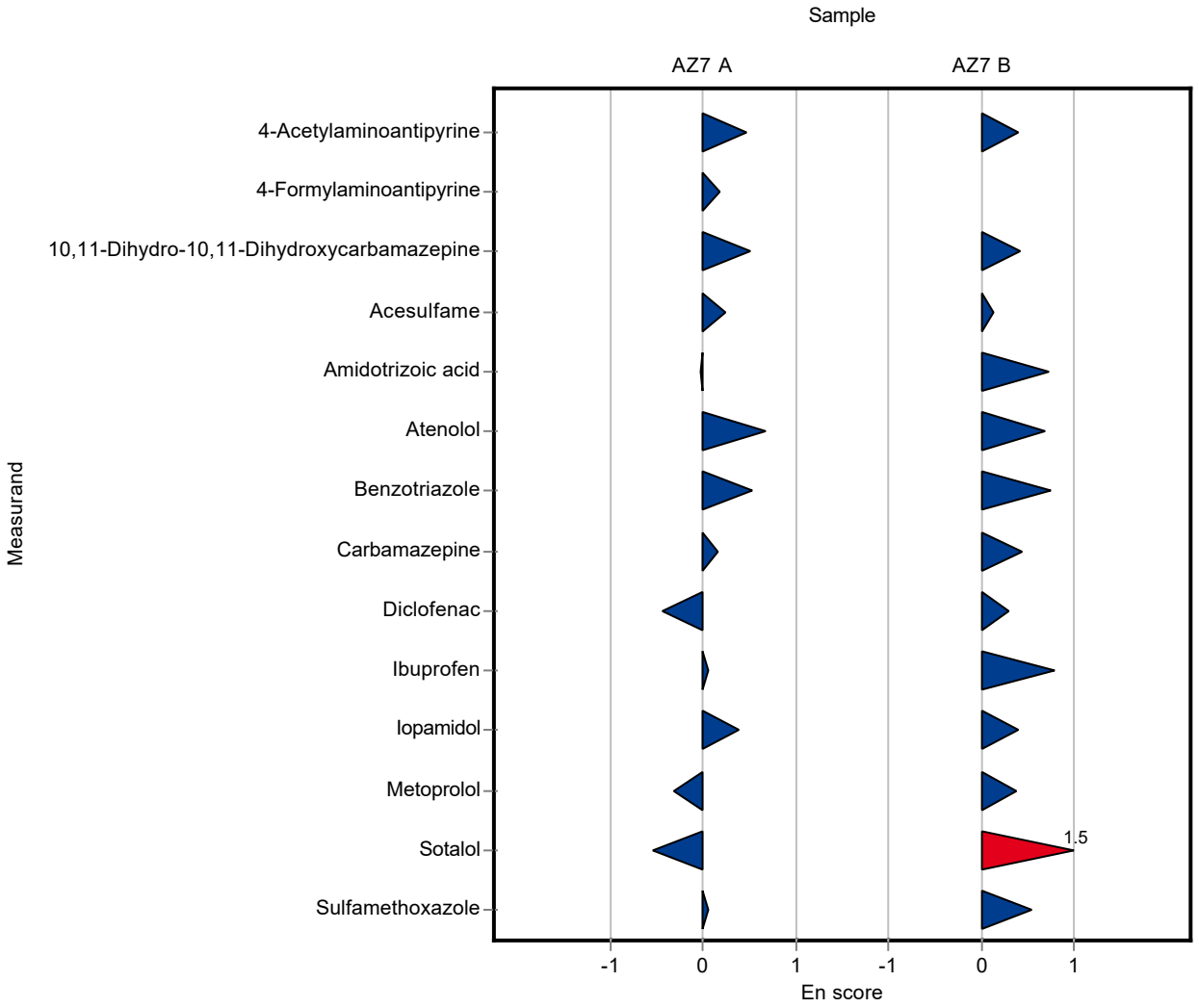
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.045 ± 0.004 | 0.0067 | 111 | 0.47 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | 0.26 ± 0.025 | 0.0385 | 104 | 0.19 |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | 0.098 ± 0.012 | 0.0175 | 116 | 0.51 |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.071 ± 0.011 | 0.0112 | 108 | 0.24 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.46 ± 0.06 | 0.0876 | 99.2 | -0.03 |
| Atenolol | µg/l | 0.316 ± 0.0247 | 0.35 ± 0.022 | 0.0349 | 111 | 0.68 |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.16 ± 0.011 | 0.0177 | 109 | 0.54 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.31 ± 0.027 | 0.0391 | 103 | 0.17 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | - ± - | 0.00533 | - | - |
| Diazepam | µg/l | - ± - | - ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.21 ± 0.02 | 0.0321 | 91.7 | -0.44 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.275 ± 0.033 | 0.0226 | 101 | 0.05 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.355 ± 0.05 | 0.0687 | 113 | 0.38 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.14 ± 0.01 | 0.0368 | 95 | -0.32 |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.155 ± 0.009 | 0.0368 | 92.7 | -0.53 |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.21 ± 0.02 | 0.0249 | 101 | 0.06 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | 4.8 ± 0.455 | 0.592 | 109 | 0.40 |
| 4-Formylaminoantipyrine | µg/l | - ± - | 3.8 ± 0.36 | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | 1.2 ± 0.143 | 0.258 | 114 | 0.42 |
| Acesulfame | µg/l | 1.97 ± 0.102 | 2.05 ± 0.308 | 0.336 | 104 | 0.12 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 1.4 ± 0.182 | 0.378 | 129 | 0.73 |
| Atenolol | µg/l | 0.377 ± 0.0648 | 0.435 ± 0.027 | 0.0792 | 115 | 0.68 |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 12.5 ± 0.883 | 1.33 | 112 | 0.76 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.465 ± 0.041 | 0.0554 | 109 | 0.44 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | - ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | 3 ± 0.27 | 0.398 | 106 | 0.29 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | 0.105 ± 0.013 | 0.0117 | 126 | 0.78 |
| Iopamidol | µg/l | 32.8 ± 7.95 | 38 ± 5.3 | 11.3 | 116 | 0.39 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.25 ± 0.018 | 0.0587 | 106 | 0.38 |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.265 ± 0.015 | 0.0452 | 129 | 1.55 |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.05 ± 0.005 | 0.00532 | 113 | 0.53 |


Sample
AZ7 A
AZ7 B
4-Acetylaminoantipyrine
4-Formylaminoantipyrine
10,11-Dihydro-10,11-Dihydroxycarbamazepine
Acesulfame
Amidotrizoic acid
Atenolol
Benzotriazole
Carbamazepine
Diclofenac
Ibuprofen
Iopamidol
Metoprolol
Sotalol
Sulfamethoxazole
1.5
Measurand
-1
0
1
-1
0
1
En score

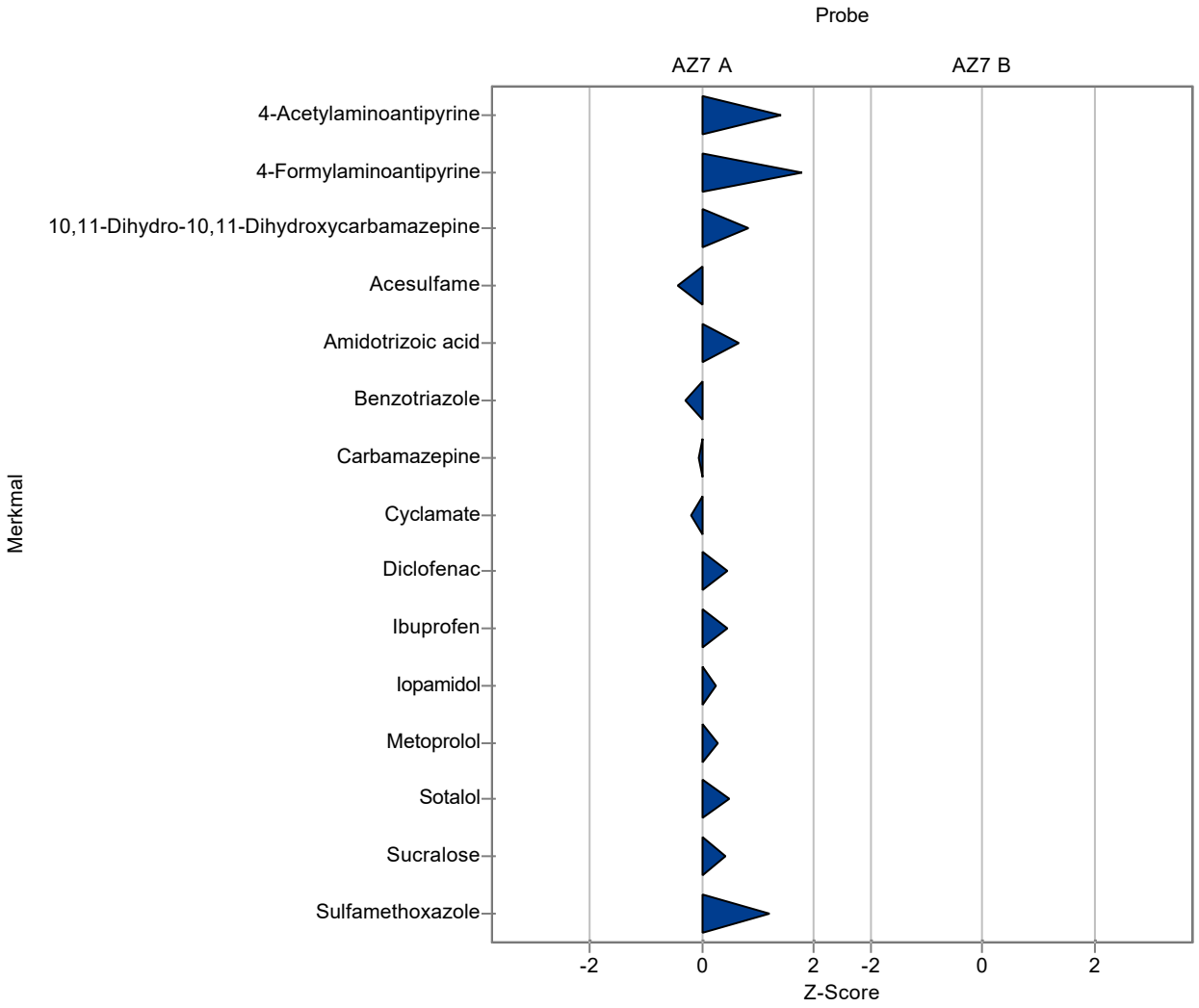
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.05 ± 0.012 | 0.0067 | 123 | 1.39 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | 0.318 ± 0.04 | 0.0385 | 128 | 1.78 |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | 0.099 ± 0.029 | 0.0175 | 117 | 0.84 |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.061 ± 0.0122 | 0.0112 | 92.8 | -0.42 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.521 ± 0.163 | 0.0876 | 112 | 0.65 |
| Atenolol | µg/l | 0.316 ± 0.0247 | - ± - | 0.0349 | - | - |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.142 ± 0.028 | 0.0177 | 96.4 | -0.30 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.299 ± 0.032 | 0.0391 | 99.4 | -0.05 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.03 ± 0.0045 | 0.00533 | 96.4 | -0.21 |
| Diazepam | µg/l | - ± - | <0.025 (LOQ) ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.244 ± 0.03 | 0.0321 | 106 | 0.46 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.282 ± 0.033 | 0.0226 | 104 | 0.46 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.33 ± 0.096 | 0.0687 | 105 | 0.24 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.158 ± 0.021 | 0.0368 | 107 | 0.29 |
| Saccharin | µg/l | - ± - | 0.025 ± 0.005 | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.185 ± 0.041 | 0.0368 | 111 | 0.48 |
| Sucralose | µg/l | 0.337 ± 0.0483 | 0.38 ± 0.076 | 0.101 | 113 | 0.43 |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.238 ± 0.044 | 0.0249 | 115 | 1.22 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | - ± - | 0.592 | - | - |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | - ± - | 0.336 | - | - |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | - ± - | 0.378 | - | - |
| Atenolol | µg/l | 0.377 ± 0.0648 | - ± - | 0.0792 | - | - |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | - ± - | 1.33 | - | - |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | - ± - | 0.0554 | - | - |
| Cyclamate | µg/l | 0.276 ± 0.0279 | - ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | - ± - | 0.398 | - | - |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | - ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | - ± - | 11.3 | - | - |
| Metoprolol | µg/l | 0.235 ± 0.0183 | - ± - | 0.0587 | - | - |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | - ± - | 0.0452 | - | - |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | - ± - | 0.00532 | - | - |


Probe
AZ7 A
AZ7 B
4-Acetylaminoantipyrine
4-Formylaminoantipyrine
10,11-Dihydro-10,11-Dihydroxycarbamazepine
Acesulfame
Amidotrizoic acid
Benzotriazole
Carbamazepine
Cyclamate
Diclofenac
Ibuprofen
Iopamidol
Metoprolol
Sotalol
Sucralose
Sulfamethoxazole
Merkmal
-2
0
2
-2
0
2
Z-Score

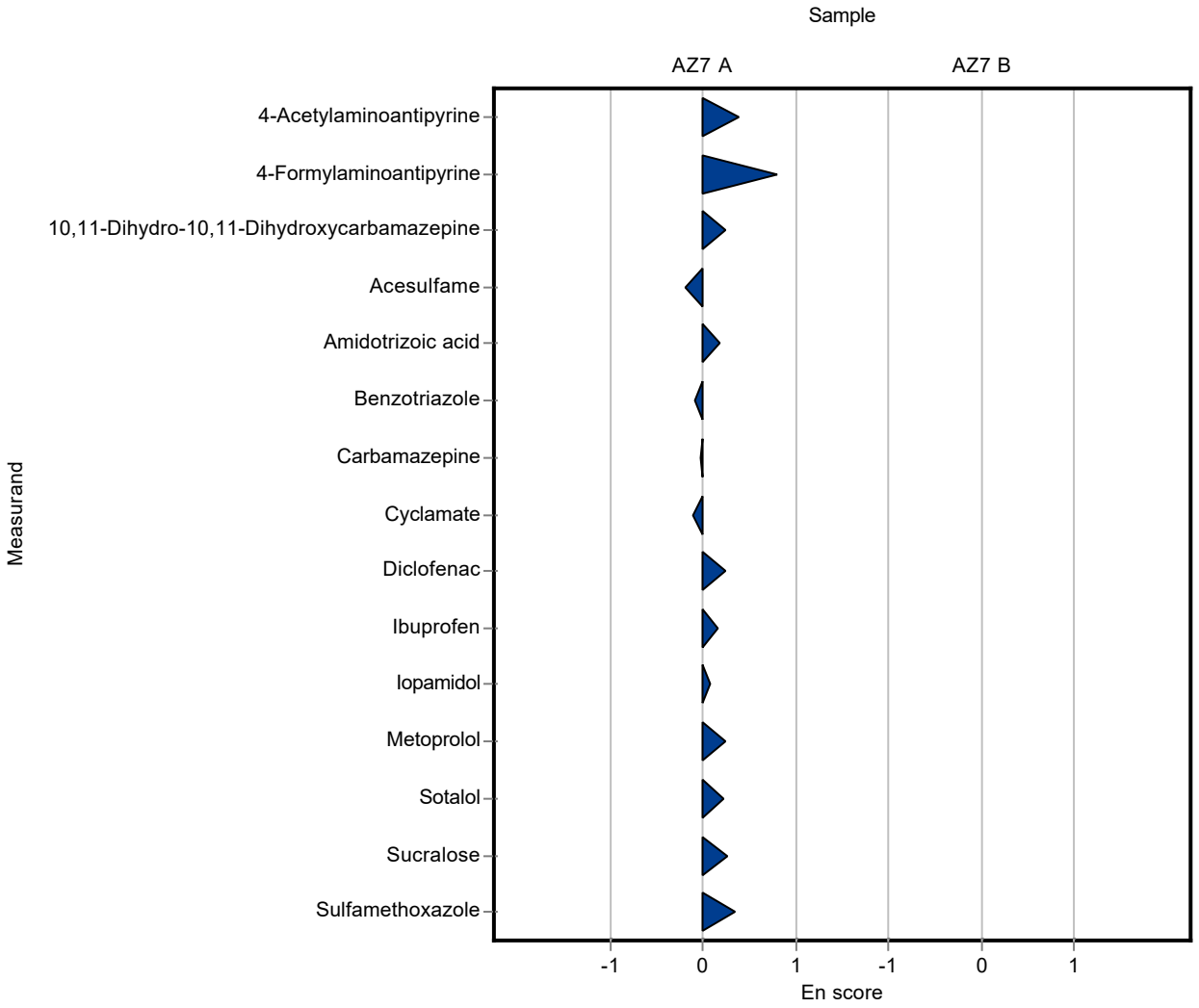
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.05 ± 0.012 | 0.0067 | 123 | 0.38 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | 0.318 ± 0.04 | 0.0385 | 128 | 0.81 |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | 0.099 ± 0.029 | 0.0175 | 117 | 0.25 |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.061 ± 0.0122 | 0.0112 | 92.8 | -0.19 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.521 ± 0.163 | 0.0876 | 112 | 0.17 |
| Atenolol | µg/l | 0.316 ± 0.0247 | - ± - | 0.0349 | - | - |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.142 ± 0.028 | 0.0177 | 96.4 | -0.09 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.299 ± 0.032 | 0.0391 | 99.4 | -0.03 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.03 ± 0.0045 | 0.00533 | 96.4 | -0.11 |
| Diazepam | µg/l | - ± - | <0.025 (LOQ) ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.244 ± 0.03 | 0.0321 | 106 | 0.24 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.282 ± 0.033 | 0.0226 | 104 | 0.15 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.33 ± 0.096 | 0.0687 | 105 | 0.08 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.158 ± 0.021 | 0.0368 | 107 | 0.25 |
| Saccharin | µg/l | - ± - | 0.025 ± 0.005 | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.185 ± 0.041 | 0.0368 | 111 | 0.21 |
| Sucralose | µg/l | 0.337 ± 0.0483 | 0.38 ± 0.076 | 0.101 | 113 | 0.27 |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.238 ± 0.044 | 0.0249 | 115 | 0.34 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | - ± - | 0.592 | - | - |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | - ± - | 0.336 | - | - |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | - ± - | 0.378 | - | - |
| Atenolol | µg/l | 0.377 ± 0.0648 | - ± - | 0.0792 | - | - |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | - ± - | 1.33 | - | - |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | - ± - | 0.0554 | - | - |
| Cyclamate | µg/l | 0.276 ± 0.0279 | - ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | - ± - | 0.398 | - | - |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | - ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | - ± - | 11.3 | - | - |
| Metoprolol | µg/l | 0.235 ± 0.0183 | - ± - | 0.0587 | - | - |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | - ± - | 0.0452 | - | - |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | - ± - | 0.00532 | - | - |


Sample
AZ7 A
AZ7 B
4-Acetylaminoantipyrine
4-Formylaminoantipyrine
10,11-Dihydro-10,11-Dihydroxycarbamazepine
Acesulfame
Amidotrizoic acid
Benzotriazole
Carbamazepine
Cyclamate
Diclofenac
Ibuprofen
Iopamidol
Metoprolol
Sotalol
Sucralose
Sulfamethoxazole
Measurand
-1
0
1
-1
0
1
En score

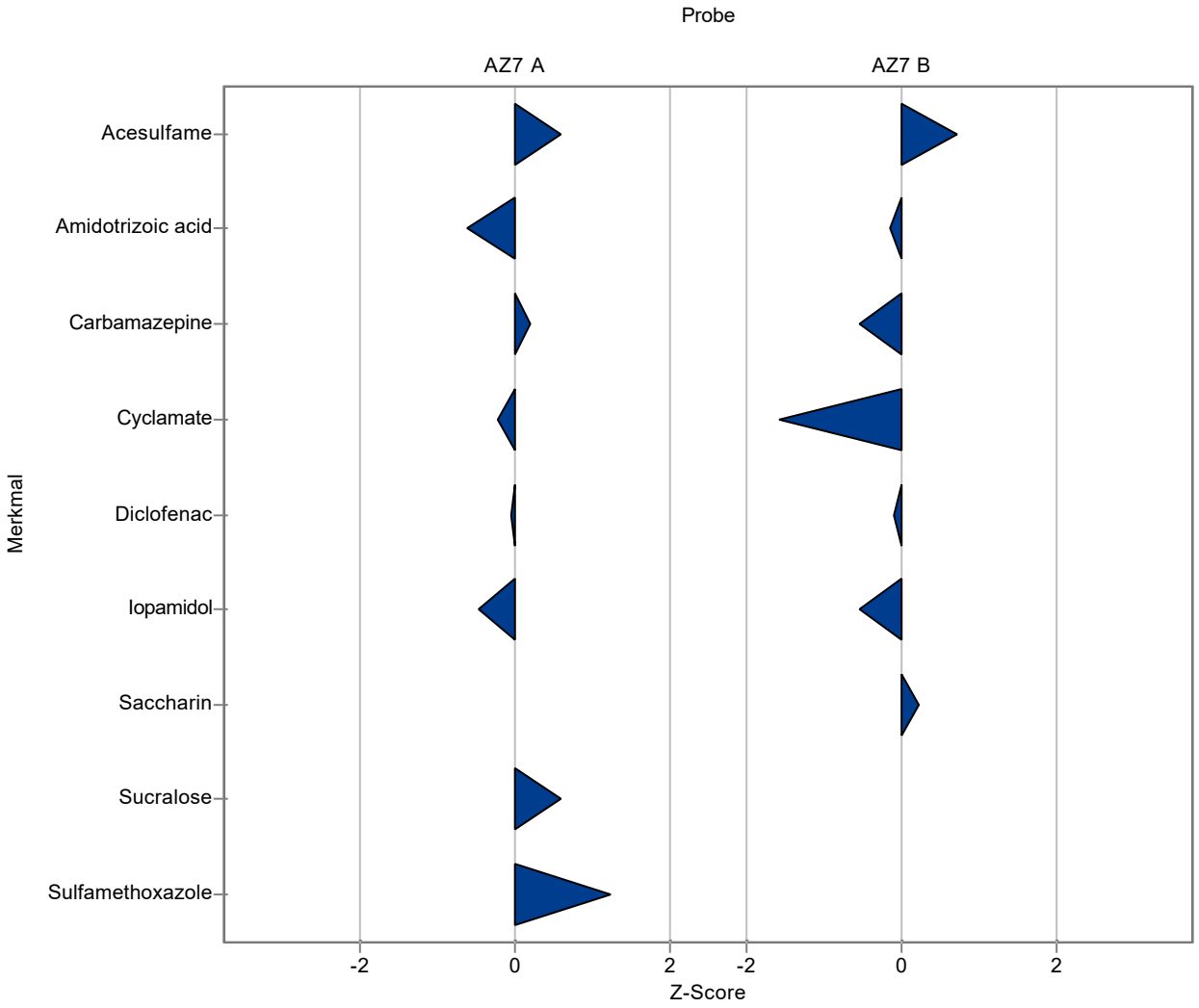
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | - ± - | 0.0067 | - | - |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | - ± - | 0.0175 | - | - |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.0725 ± 0.0013 | 0.0112 | 110 | 0.61 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.4106 ± 0.086 | 0.0876 | 88.5 | -0.61 |
| Atenolol | µg/l | 0.316 ± 0.0247 | - ± - | 0.0349 | - | - |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | - ± - | 0.0177 | - | - |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.3083 ± 0.03 | 0.0391 | 102 | 0.19 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.03 ± 0.0022 | 0.00533 | 96.4 | -0.21 |
| Diazepam | µg/l | - ± - | - ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.228 ± 0.013 | 0.0321 | 99.5 | -0.03 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | - ± - | 0.0226 | - | - |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.28199 ± 0.065 | 0.0687 | 89.9 | -0.46 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | - ± - | 0.0368 | - | - |
| Saccharin | µg/l | - ± - | <0.05 (LOQ) ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | - ± - | 0.0368 | - | - |
| Sucralose | µg/l | 0.337 ± 0.0483 | 0.3975 ± 0.0083 | 0.101 | 118 | 0.60 |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.2388 ± 0.053 | 0.0249 | 115 | 1.25 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | - ± - | 0.592 | - | - |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | 2.213 ± 0.079 | 0.336 | 112 | 0.71 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 1.0288 ± 0.22 | 0.378 | 94.7 | -0.15 |
| Atenolol | µg/l | 0.377 ± 0.0648 | - ± - | 0.0792 | - | - |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | - ± - | 1.33 | - | - |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.3955 ± 0.039 | 0.0554 | 92.8 | -0.56 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | 0.2175 ± 0.028 | 0.0369 | 78.8 | -1.59 |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.795 ± 0.16 | 0.398 | 98.4 | -0.12 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | - ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | 26.7169 ± 6.14 | 11.3 | 81.3 | -0.54 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | - ± - | 0.0587 | - | - |
| Saccharin | µg/l | 1.39 ± 0.0833 | 1.458 ± 0.087 | 0.306 | 105 | 0.22 |
| Sotalol | µg/l | 0.206 ± 0.0241 | - ± - | 0.0452 | - | - |
| Sucralose | µg/l | - ± - | 11.485 ± 0.011 | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | <0.05 (LOQ) ± - | 0.00532 | - | - |


Probe
AZ7 A
AZ7 B
Acesulfame
Amidotrizoic acid
Carbamazepine
Cyclamate
Diclofenac
Iopamidol
Saccharin
Sucralose
Sulfamethoxazole
Merkmal
-2
0
2
-2
0
2
Z-Score

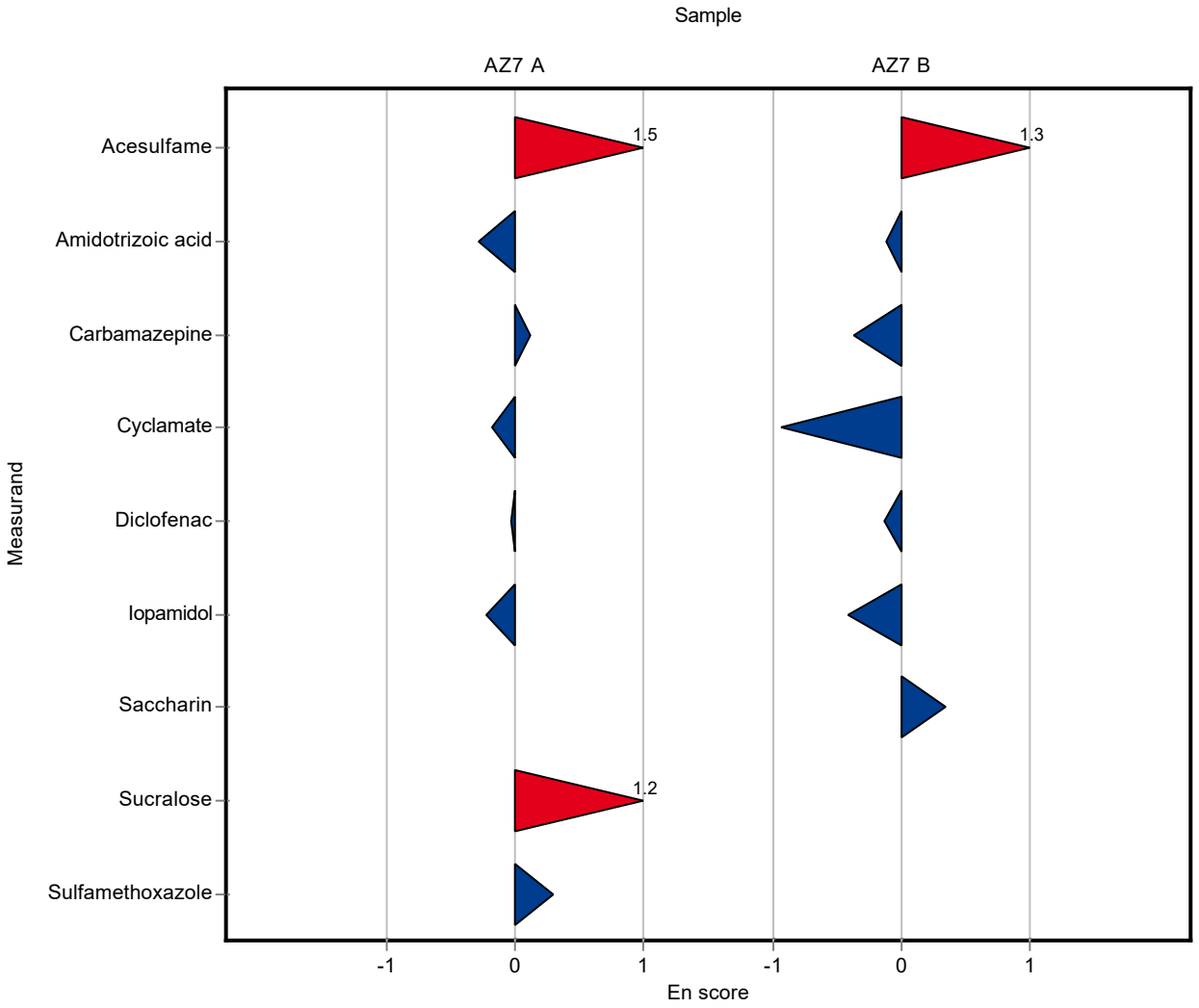
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | - ± - | 0.0067 | - | - |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | - ± - | 0.0175 | - | - |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.0725 ± 0.0013 | 0.0112 | 110 | 1.46 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.4106 ± 0.086 | 0.0876 | 88.5 | -0.29 |
| Atenolol | µg/l | 0.316 ± 0.0247 | - ± - | 0.0349 | - | - |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | - ± - | 0.0177 | - | - |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.3083 ± 0.03 | 0.0391 | 102 | 0.12 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.03 ± 0.0022 | 0.00533 | 96.4 | -0.17 |
| Diazepam | µg/l | - ± - | - ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.228 ± 0.013 | 0.0321 | 99.5 | -0.04 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | - ± - | 0.0226 | - | - |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.28199 ± 0.065 | 0.0687 | 89.9 | -0.23 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | - ± - | 0.0368 | - | - |
| Saccharin | µg/l | - ± - | <0.05 (LOQ) ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | - ± - | 0.0368 | - | - |
| Sucralose | µg/l | 0.337 ± 0.0483 | 0.3975 ± 0.0083 | 0.101 | 118 | 1.19 |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.2388 ± 0.053 | 0.0249 | 115 | 0.29 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | - ± - | 0.592 | - | - |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | 2.213 ± 0.079 | 0.336 | 112 | 1.27 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 1.0288 ± 0.22 | 0.378 | 94.7 | -0.12 |
| Atenolol | µg/l | 0.377 ± 0.0648 | - ± - | 0.0792 | - | - |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | - ± - | 1.33 | - | - |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.3955 ± 0.039 | 0.0554 | 92.8 | -0.37 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | 0.2175 ± 0.028 | 0.0369 | 78.8 | -0.94 |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.795 ± 0.16 | 0.398 | 98.4 | -0.14 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | - ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | 26.7169 ± 6.14 | 11.3 | 81.3 | -0.42 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | - ± - | 0.0587 | - | - |
| Saccharin | µg/l | 1.39 ± 0.0833 | 1.458 ± 0.087 | 0.306 | 105 | 0.34 |
| Sotalol | µg/l | 0.206 ± 0.0241 | - ± - | 0.0452 | - | - |
| Sucralose | µg/l | - ± - | 11.485 ± 0.011 | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | <0.05 (LOQ) ± - | 0.00532 | - | - |


Sample
AZ7 A
AZ7 B
Acesulfame
Amidotrizoic acid
Carbamazepine
Cyclamate
Diclofenac
Iopamidol
Saccharin
Sucralose
Sulfamethoxazole
Measurand
1.5
1.3
1.2
-1
0
1
-1
0
1
En score

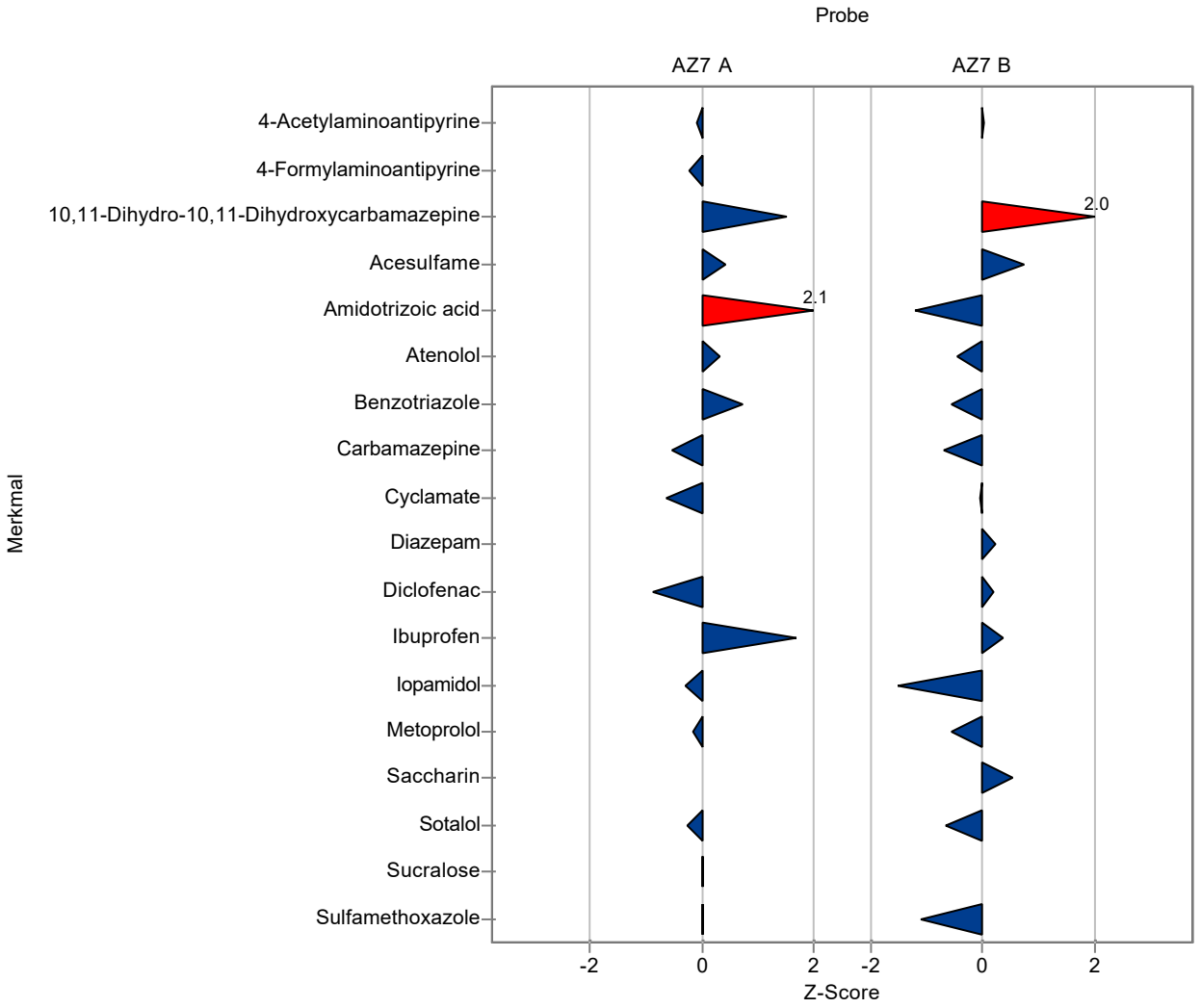
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.04 ± 0.01 | 0.0067 | 98.3 | -0.10 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | 0.2408 ± 0.05 | 0.0385 | 96.6 | -0.22 |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | 0.1108 ± 0.02 | 0.0175 | 131 | 1.52 |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.0703 ± 0.01 | 0.0112 | 107 | 0.41 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.6435 ± 0.13 | 0.0876 | 139 | 2.05 |
| Atenolol | µg/l | 0.316 ± 0.0247 | 0.3273 ± 0.07 | 0.0349 | 104 | 0.33 |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.1598 ± 0.03 | 0.0177 | 109 | 0.71 |
| Bisoprolol | µg/l | - ± - | 0.1513 ± 0.03 | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.2795 ± 0.06 | 0.0391 | 92.9 | -0.54 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.0276 ± 0.01 | 0.00533 | 88.7 | -0.66 |
| Diazepam | µg/l | - ± - | <0.02 (LOQ) ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.2005 ± 0.04 | 0.0321 | 87.5 | -0.89 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.3093 ± 0.06 | 0.0226 | 114 | 1.66 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.2918 ± 0.06 | 0.0687 | 93.1 | -0.32 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.141 ± 0.03 | 0.0368 | 95.7 | -0.17 |
| Saccharin | µg/l | - ± - | 0.0174 ± 0.01 | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.158 ± 0.03 | 0.0368 | 94.5 | -0.25 |
| Sucralose | µg/l | 0.337 ± 0.0483 | 0.3358 ± 0.07 | 0.101 | 99.7 | -0.01 |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.2078 ± 0.04 | 0.0249 | 100 | 0.00 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | 4.405 ± 0.88 | 0.592 | 100 | 0.01 |
| 4-Formylaminoantipyrine | µg/l | - ± - | 3.425 ± 0.69 | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | 1.58 ± 0.32 | 0.258 | 150 | 2.03 |
| Acesulfame | µg/l | 1.97 ± 0.102 | 2.2212 ± 0.44 | 0.336 | 112 | 0.73 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 0.635 ± 0.13 | 0.378 | 58.5 | -1.19 |
| Atenolol | µg/l | 0.377 ± 0.0648 | 0.3428 ± 0.07 | 0.0792 | 90.9 | -0.43 |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 10.3585 ± 2.07 | 1.33 | 93.2 | -0.56 |
| Bisoprolol | µg/l | - ± - | 0.2695 ± 0.05 | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.3873 ± 0.08 | 0.0554 | 90.8 | -0.70 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | 0.2744 ± 0.05 | 0.0369 | 99.4 | -0.05 |
| Diazepam | µg/l | 0.382 ± 0.0467 | 0.3963 ± 0.08 | 0.0618 | 104 | 0.23 |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.925 ± 0.59 | 0.398 | 103 | 0.21 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | 0.088 ± 0.02 | 0.0117 | 105 | 0.39 |
| Iopamidol | µg/l | 32.8 ± 7.95 | 15.715 ± 3.14 | 11.3 | 47.8 | -1.51 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.2015 ± 0.04 | 0.0587 | 85.8 | -0.57 |
| Saccharin | µg/l | 1.39 ± 0.0833 | 1.5576 ± 0.31 | 0.306 | 112 | 0.54 |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.1753 ± 0.04 | 0.0452 | 85.3 | -0.67 |
| Sucralose | µg/l | - ± - | 10.9418 ± 2.19 | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.0385 ± 0.01 | 0.00532 | 86.8 | -1.10 |


Probe
AZ7 A
AZ7 B
4-Acetylaminoantipyrine
4-Formylaminoantipyrine
10,11-Dihydro-10,11-Dihydroxycarbamazepine
Acesulfame
Amidotrizoic acid
Atenolol
Benzotriazole
Carbamazepine
Cyclamate
Diazepam
Diclofenac
Ibuprofen
Iopamidol
Metoprolol
Saccharin
Sotalol
Sucralose
Sulfamethoxazole
2.1
2.0
Merkmal
-2
0
2
-2
0
2
Z-Score

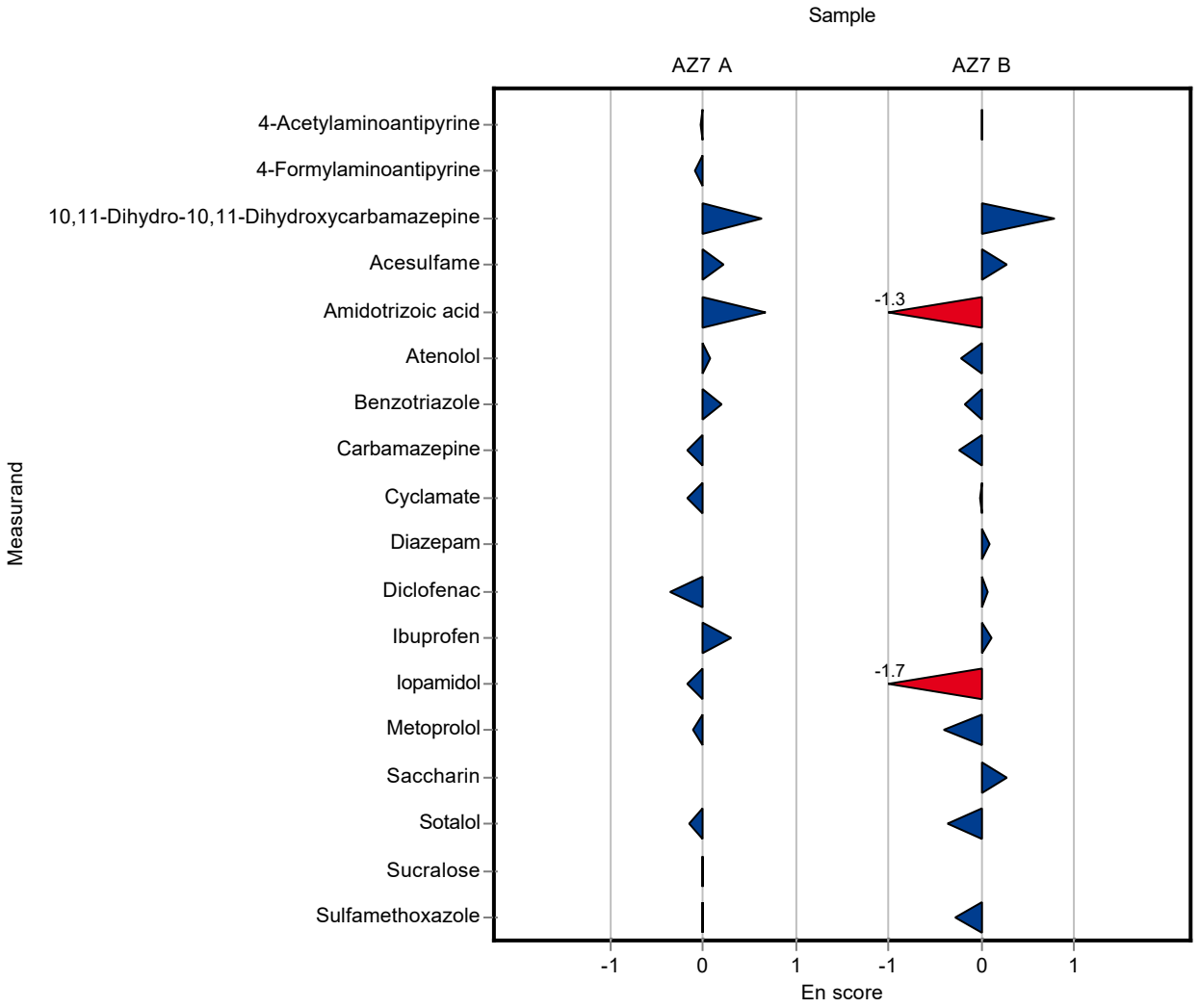
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.04 ± 0.01 | 0.0067 | 98.3 | -0.03 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | 0.2408 ± 0.05 | 0.0385 | 96.6 | -0.08 |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | 0.1108 ± 0.02 | 0.0175 | 131 | 0.63 |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.0703 ± 0.01 | 0.0112 | 107 | 0.23 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.6435 ± 0.13 | 0.0876 | 139 | 0.67 |
| Atenolol | µg/l | 0.316 ± 0.0247 | 0.3273 ± 0.07 | 0.0349 | 104 | 0.08 |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.1598 ± 0.03 | 0.0177 | 109 | 0.21 |
| Bisoprolol | µg/l | - ± - | 0.1513 ± 0.03 | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.2795 ± 0.06 | 0.0391 | 92.9 | -0.18 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.0276 ± 0.01 | 0.00533 | 88.7 | -0.17 |
| Diazepam | µg/l | - ± - | <0.02 (LOQ) ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.2005 ± 0.04 | 0.0321 | 87.5 | -0.35 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.3093 ± 0.06 | 0.0226 | 114 | 0.31 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.2918 ± 0.06 | 0.0687 | 93.1 | -0.17 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.141 ± 0.03 | 0.0368 | 95.7 | -0.10 |
| Saccharin | µg/l | - ± - | 0.0174 ± 0.01 | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.158 ± 0.03 | 0.0368 | 94.5 | -0.15 |
| Sucralose | µg/l | 0.337 ± 0.0483 | 0.3358 ± 0.07 | 0.101 | 99.7 | -0.01 |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.2078 ± 0.04 | 0.0249 | 100 | 0.00 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | 4.405 ± 0.88 | 0.592 | 100 | 0.00 |
| 4-Formylaminoantipyrine | µg/l | - ± - | 3.425 ± 0.69 | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | 1.58 ± 0.32 | 0.258 | 150 | 0.78 |
| Acesulfame | µg/l | 1.97 ± 0.102 | 2.2212 ± 0.44 | 0.336 | 112 | 0.28 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 0.635 ± 0.13 | 0.378 | 58.5 | -1.32 |
| Atenolol | µg/l | 0.377 ± 0.0648 | 0.3428 ± 0.07 | 0.0792 | 90.9 | -0.22 |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 10.3585 ± 2.07 | 1.33 | 93.2 | -0.18 |
| Bisoprolol | µg/l | - ± - | 0.2695 ± 0.05 | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.3873 ± 0.08 | 0.0554 | 90.8 | -0.24 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | 0.2744 ± 0.05 | 0.0369 | 99.4 | -0.02 |
| Diazepam | µg/l | 0.382 ± 0.0467 | 0.3963 ± 0.08 | 0.0618 | 104 | 0.09 |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.925 ± 0.59 | 0.398 | 103 | 0.07 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | 0.088 ± 0.02 | 0.0117 | 105 | 0.11 |
| Iopamidol | µg/l | 32.8 ± 7.95 | 15.715 ± 3.14 | 11.3 | 47.8 | -1.69 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.2015 ± 0.04 | 0.0587 | 85.8 | -0.41 |
| Saccharin | µg/l | 1.39 ± 0.0833 | 1.5576 ± 0.31 | 0.306 | 112 | 0.27 |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.1753 ± 0.04 | 0.0452 | 85.3 | -0.36 |
| Sucralose | µg/l | - ± - | 10.9418 ± 2.19 | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.0385 ± 0.01 | 0.00532 | 86.8 | -0.29 |


Sample
AZ7 A
AZ7 B
4-Acetylaminoantipyrine
4-Formylaminoantipyrine
10,11-Dihydro-10,11-Dihydroxycarbamazepine
Acesulfame
Amidotrizoic acid
Atenolol
Benzotriazole
Carbamazepine
Cyclamate
Diazepam
Diclofenac
Ibuprofen
Iopamidol
Metoprolol
Saccharin
Sotalol
Sucralose
Sulfamethoxazole
-1.3
-1.7
Measurand
-1
0
1
-1
0
1
En score

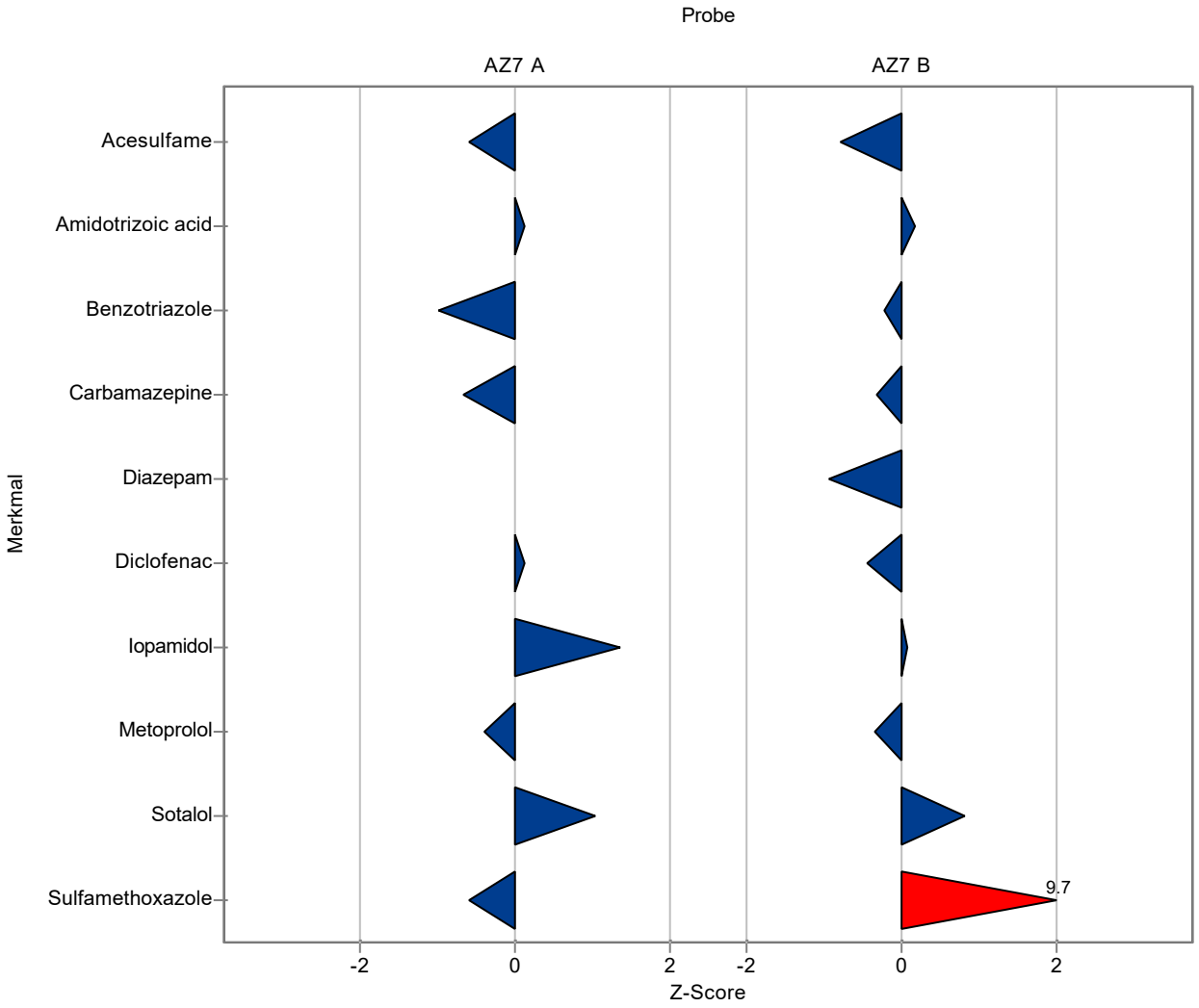
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | - ± - | 0.0067 | - | - |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | - ± - | 0.0175 | - | - |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.059 ± 0.012 | 0.0112 | 89.8 | -0.60 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.476 ± 0.095 | 0.0876 | 103 | 0.14 |
| Atenolol | µg/l | 0.316 ± 0.0247 | - ± - | 0.0349 | - | - |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.13 ± 0.026 | 0.0177 | 88.3 | -0.98 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.275 ± 0.055 | 0.0391 | 91.4 | -0.66 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | - ± - | 0.00533 | - | - |
| Diazepam | µg/l | - ± - | <0.01 (LOQ) ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.233 ± 0.047 | 0.0321 | 102 | 0.12 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | - ± - | 0.0226 | - | - |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.408 ± 0.082 | 0.0687 | 130 | 1.38 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.133 ± 0.027 | 0.0368 | 90.3 | -0.39 |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.206 ± 0.041 | 0.0368 | 123 | 1.05 |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.193 ± 0.039 | 0.0249 | 92.9 | -0.59 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | - ± - | 0.592 | - | - |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | 1.71 ± 0.342 | 0.336 | 86.6 | -0.79 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 1.15 ± 0.229 | 0.378 | 106 | 0.17 |
| Atenolol | µg/l | 0.377 ± 0.0648 | - ± - | 0.0792 | - | - |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 10.8 ± 2.15 | 1.33 | 97.2 | -0.23 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.408 ± 0.082 | 0.0554 | 95.7 | -0.33 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | - ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | 0.324 ± 0.065 | 0.0618 | 84.8 | -0.94 |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.66 ± 0.531 | 0.398 | 93.6 | -0.45 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | - ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | 33.7 ± 6.73 | 11.3 | 103 | 0.08 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.214 ± 0.043 | 0.0587 | 91.1 | -0.36 |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.242 ± 0.048 | 0.0452 | 118 | 0.81 |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.096 ± 0.019 | 0.00532 | 216 | 9.70 |


Probe
AZ7 A
AZ7 B
Merkmal
Acesulfame
Amidotrizoic acid
Benzotriazole
Carbamazepine
Diazepam
Diclofenac
Iopamidol
Metoprolol
Sotalol
Sulfamethoxazole
9.7
-2
0
2
-2
0
2
Z-Score

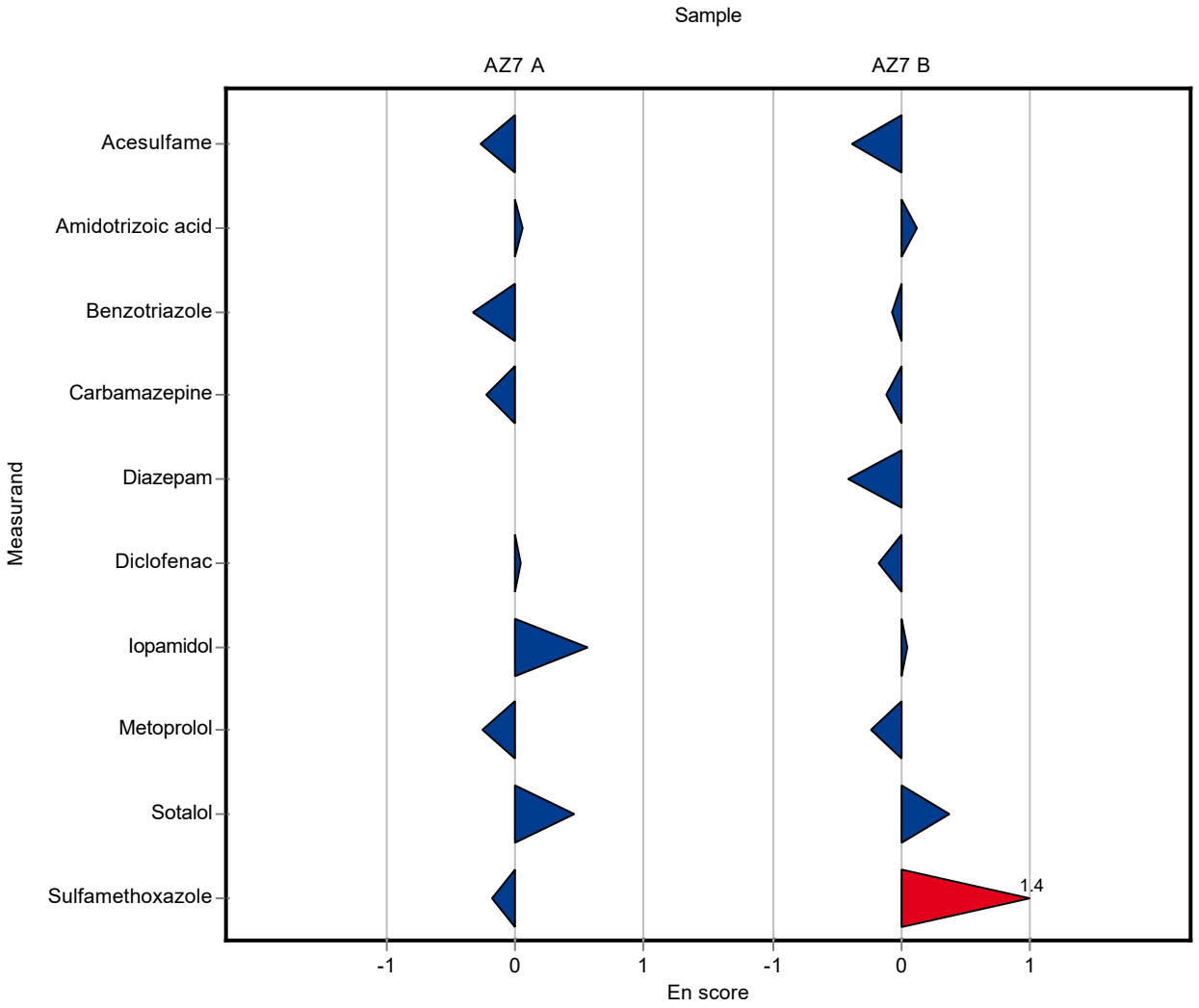
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | - ± - | 0.0067 | - | - |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | - ± - | 0.0175 | - | - |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.059 ± 0.012 | 0.0112 | 89.8 | -0.28 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.476 ± 0.095 | 0.0876 | 103 | 0.06 |
| Atenolol | µg/l | 0.316 ± 0.0247 | - ± - | 0.0349 | - | - |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.13 ± 0.026 | 0.0177 | 88.3 | -0.33 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.275 ± 0.055 | 0.0391 | 91.4 | -0.23 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | - ± - | 0.00533 | - | - |
| Diazepam | µg/l | - ± - | <0.01 (LOQ) ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.233 ± 0.047 | 0.0321 | 102 | 0.04 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | - ± - | 0.0226 | - | - |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.408 ± 0.082 | 0.0687 | 130 | 0.56 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.133 ± 0.027 | 0.0368 | 90.3 | -0.26 |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.206 ± 0.041 | 0.0368 | 123 | 0.47 |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.193 ± 0.039 | 0.0249 | 92.9 | -0.19 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | - ± - | 0.592 | - | - |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | 1.71 ± 0.342 | 0.336 | 86.6 | -0.38 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 1.15 ± 0.229 | 0.378 | 106 | 0.13 |
| Atenolol | µg/l | 0.377 ± 0.0648 | - ± - | 0.0792 | - | - |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 10.8 ± 2.15 | 1.33 | 97.2 | -0.07 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.408 ± 0.082 | 0.0554 | 95.7 | -0.11 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | - ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | 0.324 ± 0.065 | 0.0618 | 84.8 | -0.42 |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.66 ± 0.531 | 0.398 | 93.6 | -0.17 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | - ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | 33.7 ± 6.73 | 11.3 | 103 | 0.05 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.214 ± 0.043 | 0.0587 | 91.1 | -0.24 |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.242 ± 0.048 | 0.0452 | 118 | 0.37 |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.096 ± 0.019 | 0.00532 | 216 | 1.35 |


Sample
AZ7 A
AZ7 B
Acesulfame
Amidotrizoic acid
Benzotriazole
Carbamazepine
Diazepam
Diclofenac
Iopamidol
Metoprolol
Sotalol
Sulfamethoxazole
Measurand
1.4
-1
0
1
-1
0
1
En score

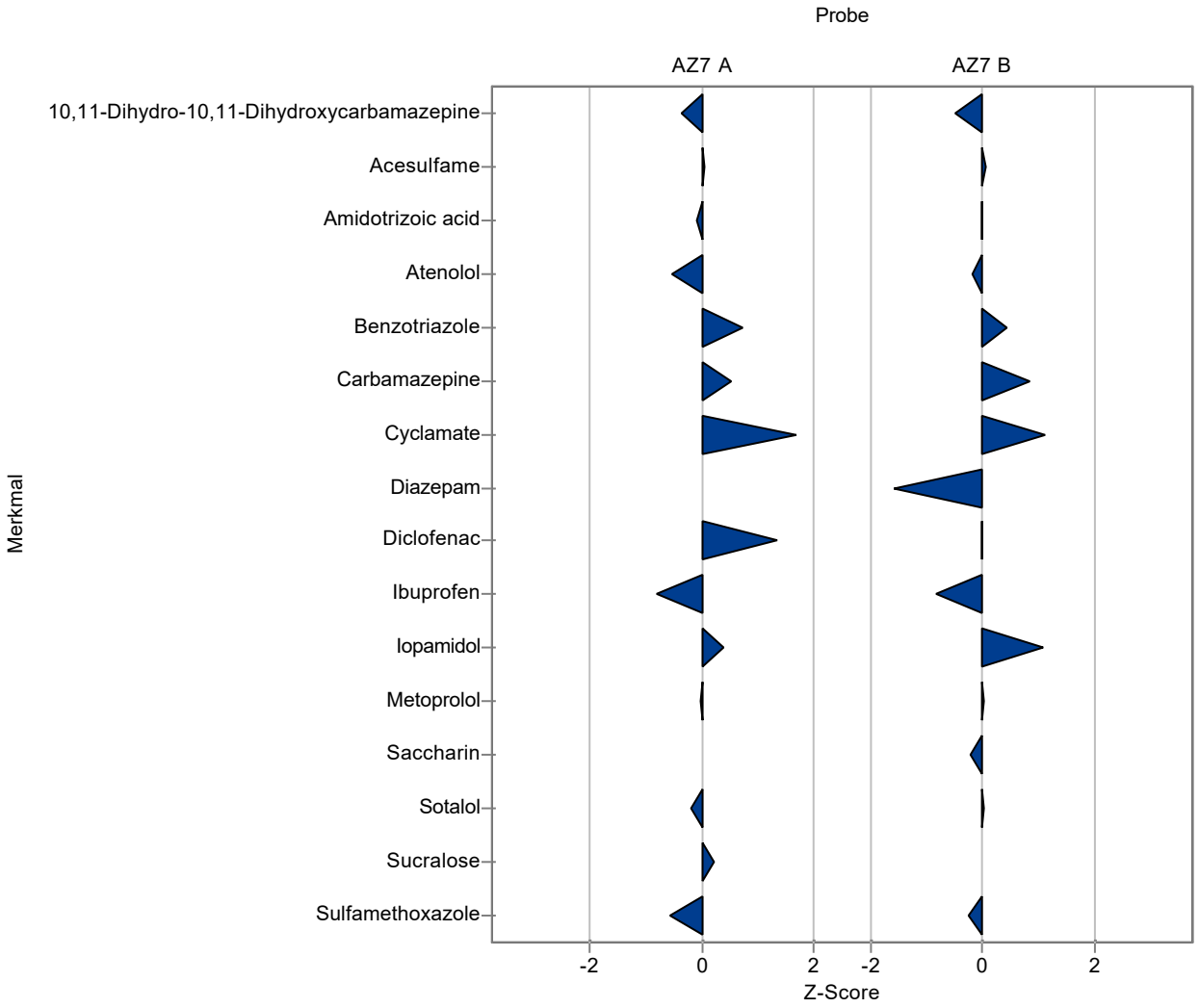
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | - ± - | 0.0067 | - | - |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | 0.078 ± 0.016 | 0.0175 | 92.6 | -0.36 |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.066 ± 0.012 | 0.0112 | 100 | 0.03 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.456 ± 0.091 | 0.0876 | 98.3 | -0.09 |
| Atenolol | µg/l | 0.316 ± 0.0247 | 0.297 ± 0.059 | 0.0349 | 94 | -0.54 |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.16 ± 0.032 | 0.0177 | 109 | 0.72 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.321 ± 0.064 | 0.0391 | 107 | 0.52 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.04 ± 0.011 | 0.00533 | 129 | 1.67 |
| Diazepam | µg/l | - ± - | <0.01 (LOQ) ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.272 ± 0.054 | 0.0321 | 119 | 1.34 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.253 ± 0.051 | 0.0226 | 93.1 | -0.82 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.34 ± 0.068 | 0.0687 | 108 | 0.39 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.146 ± 0.029 | 0.0368 | 99.1 | -0.04 |
| Saccharin | µg/l | - ± - | 0.016 ± 0.004 | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.16 ± 0.032 | 0.0368 | 95.7 | -0.20 |
| Sucralose | µg/l | 0.337 ± 0.0483 | 0.359 ± 0.072 | 0.101 | 107 | 0.22 |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.193 ± 0.039 | 0.0249 | 92.9 | -0.59 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | - ± - | 0.592 | - | - |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | 0.932 ± 0.186 | 0.258 | 88.3 | -0.48 |
| Acesulfame | µg/l | 1.97 ± 0.102 | 1.994 ± 0.359 | 0.336 | 101 | 0.06 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 1.088 ± 0.218 | 0.378 | 100 | 0.00 |
| Atenolol | µg/l | 0.377 ± 0.0648 | 0.362 ± 0.072 | 0.0792 | 95.9 | -0.19 |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 11.69 ± 2.34 | 1.33 | 105 | 0.43 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.473 ± 0.095 | 0.0554 | 111 | 0.84 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | 0.317 ± 0.086 | 0.0369 | 115 | 1.11 |
| Diazepam | µg/l | 0.382 ± 0.0467 | 0.284 ± 0.057 | 0.0618 | 74.3 | -1.59 |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.844 ± 0.569 | 0.398 | 100 | 0.01 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | 0.074 ± 0.015 | 0.0117 | 88.6 | -0.81 |
| Iopamidol | µg/l | 32.8 ± 7.95 | 45.2 ± 9.04 | 11.3 | 138 | 1.09 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.237 ± 0.047 | 0.0587 | 101 | 0.04 |
| Saccharin | µg/l | 1.39 ± 0.0833 | 1.324 ± 0.331 | 0.306 | 95.1 | -0.22 |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.207 ± 0.041 | 0.0452 | 101 | 0.03 |
| Sucralose | µg/l | - ± - | 10.23 ± 2.05 | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.043 ± 0.009 | 0.00532 | 96.9 | -0.26 |


Probe
AZ7 A
AZ7 B
10,11-Dihydro-10,11-Dihydroxycarbamazepine
Acesulfame
Amidotrizoic acid
Atenolol
Benzotriazole
Carbamazepine
Cyclamate
Diazepam
Diclofenac
Ibuprofen
Iopamidol
Metoprolol
Saccharin
Sotalol
Sucralose
Sulfamethoxazole
Merkmal
-2
0
2
-2
0
2
Z-Score

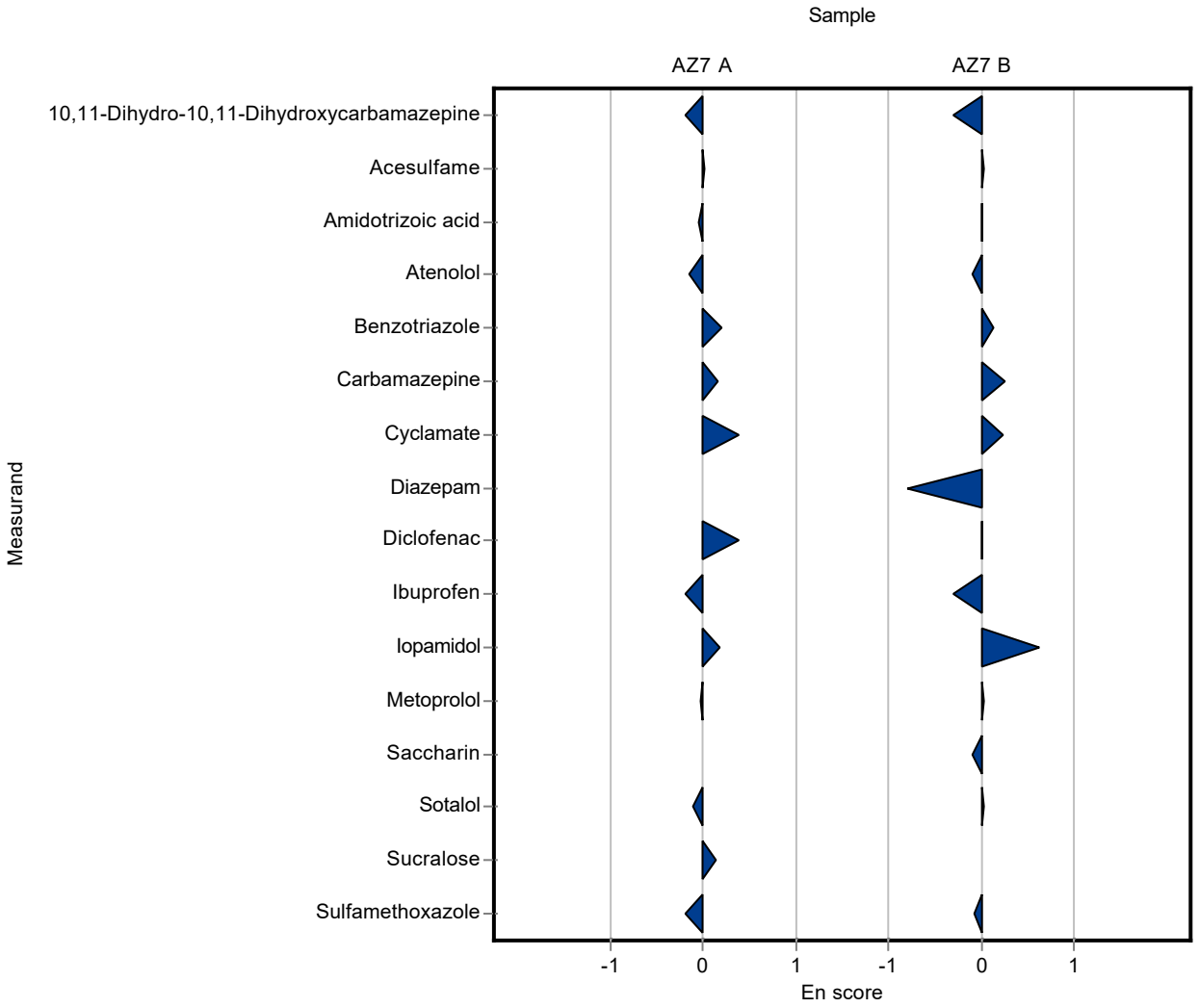
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | - ± - | 0.0067 | - | - |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | 0.078 ± 0.016 | 0.0175 | 92.6 | -0.18 |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.066 ± 0.012 | 0.0112 | 100 | 0.01 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.456 ± 0.091 | 0.0876 | 98.3 | -0.04 |
| Atenolol | µg/l | 0.316 ± 0.0247 | 0.297 ± 0.059 | 0.0349 | 94 | -0.16 |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.16 ± 0.032 | 0.0177 | 109 | 0.20 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.321 ± 0.064 | 0.0391 | 107 | 0.16 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.04 ± 0.011 | 0.00533 | 129 | 0.40 |
| Diazepam | µg/l | - ± - | <0.01 (LOQ) ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.272 ± 0.054 | 0.0321 | 119 | 0.39 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.253 ± 0.051 | 0.0226 | 93.1 | -0.18 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.34 ± 0.068 | 0.0687 | 108 | 0.19 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.146 ± 0.029 | 0.0368 | 99.1 | -0.02 |
| Saccharin | µg/l | - ± - | 0.016 ± 0.004 | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.16 ± 0.032 | 0.0368 | 95.7 | -0.11 |
| Sucralose | µg/l | 0.337 ± 0.0483 | 0.359 ± 0.072 | 0.101 | 107 | 0.15 |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.193 ± 0.039 | 0.0249 | 92.9 | -0.19 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | - ± - | 0.592 | - | - |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | 0.932 ± 0.186 | 0.258 | 88.3 | -0.29 |
| Acesulfame | µg/l | 1.97 ± 0.102 | 1.994 ± 0.359 | 0.336 | 101 | 0.03 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 1.088 ± 0.218 | 0.378 | 100 | 0.00 |
| Atenolol | µg/l | 0.377 ± 0.0648 | 0.362 ± 0.072 | 0.0792 | 95.9 | -0.10 |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 11.69 ± 2.34 | 1.33 | 105 | 0.12 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.473 ± 0.095 | 0.0554 | 111 | 0.24 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | 0.317 ± 0.086 | 0.0369 | 115 | 0.23 |
| Diazepam | µg/l | 0.382 ± 0.0467 | 0.284 ± 0.057 | 0.0618 | 74.3 | -0.80 |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.844 ± 0.569 | 0.398 | 100 | 0.00 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | 0.074 ± 0.015 | 0.0117 | 88.6 | -0.30 |
| Iopamidol | µg/l | 32.8 ± 7.95 | 45.2 ± 9.04 | 11.3 | 138 | 0.63 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.237 ± 0.047 | 0.0587 | 101 | 0.02 |
| Saccharin | µg/l | 1.39 ± 0.0833 | 1.324 ± 0.331 | 0.306 | 95.1 | -0.10 |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.207 ± 0.041 | 0.0452 | 101 | 0.02 |
| Sucralose | µg/l | - ± - | 10.23 ± 2.05 | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.043 ± 0.009 | 0.00532 | 96.9 | -0.07 |


Sample
AZ7 A
AZ7 B
10,11-Dihydro-10,11-Dihydroxycarbamazepine
Acesulfame
Amidotrizoic acid
Atenolol
Benzotriazole
Carbamazepine
Cyclamate
Diazepam
Diclofenac
Ibuprofen
Iopamidol
Metoprolol
Saccharin
Sotalol
Sucralose
Sulfamethoxazole
Measurand
-1
0
1
-1
0
1
En score

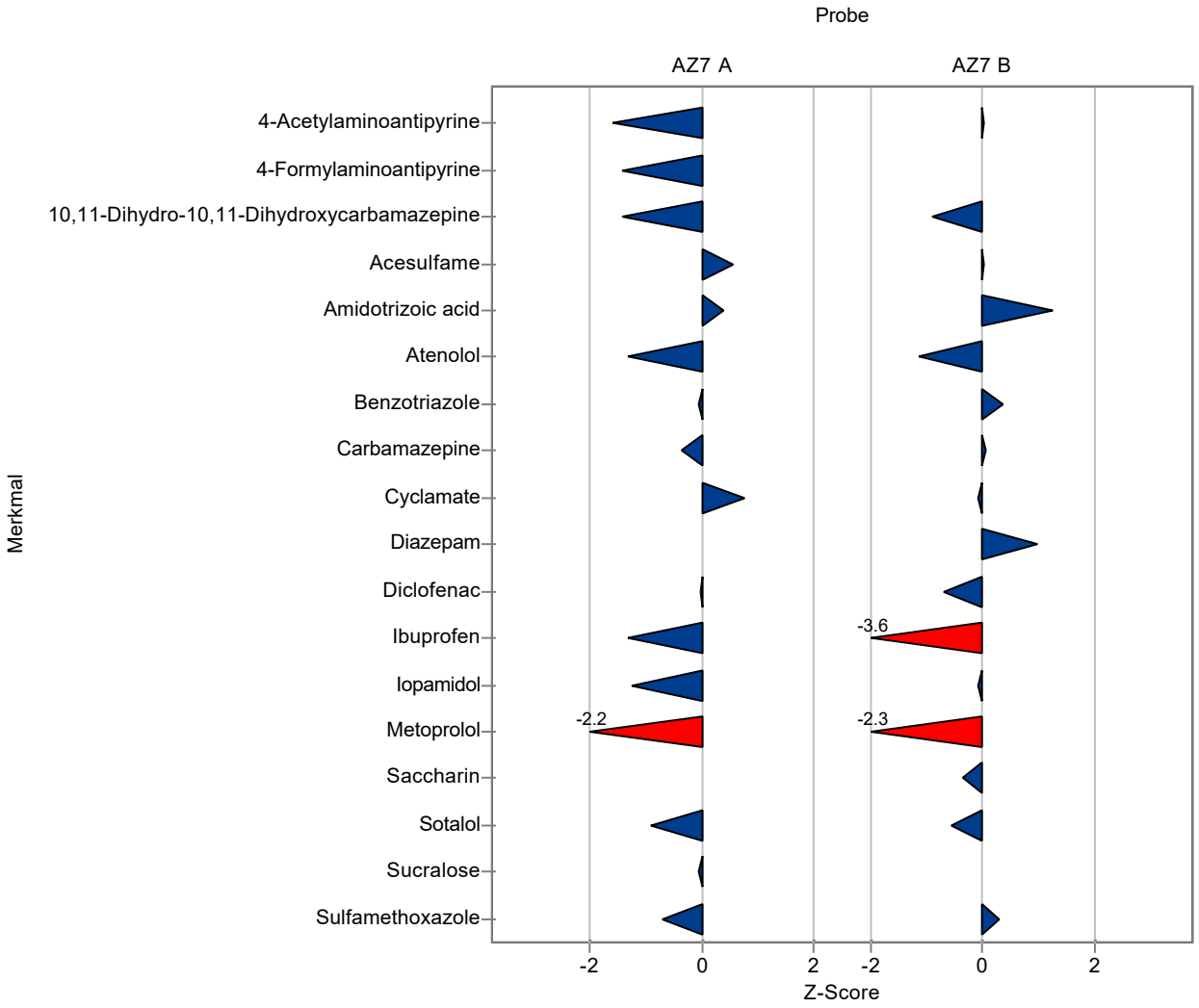
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.03 ± 0.0026 | 0.0067 | 73.8 | -1.59 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | 0.194 ± 0.017 | 0.0385 | 77.8 | -1.43 |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | 0.059 ± 0.0052 | 0.0175 | 70 | -1.44 |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.072 ± 0.0063 | 0.0112 | 110 | 0.56 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.498 ± 0.044 | 0.0876 | 107 | 0.39 |
| Atenolol | µg/l | 0.316 ± 0.0247 | 0.27 ± 0.024 | 0.0349 | 85.5 | -1.32 |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.146 ± 0.013 | 0.0177 | 99.1 | -0.07 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.287 ± 0.025 | 0.0391 | 95.4 | -0.35 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.0352 ± 0.0031 | 0.00533 | 113 | 0.77 |
| Diazepam | µg/l | - ± - | <0.01 (LOQ) ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.228 ± 0.02 | 0.0321 | 99.5 | -0.03 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.242 ± 0.021 | 0.0226 | 89.1 | -1.31 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.228 ± 0.02 | 0.0687 | 72.7 | -1.25 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.065 ± 0.0057 | 0.0368 | 44.1 | -2.23 |
| Saccharin | µg/l | - ± - | 0.019 ± 0.0017 | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.133 ± 0.012 | 0.0368 | 79.5 | -0.93 |
| Sucralose | µg/l | 0.337 ± 0.0483 | 0.33 ± 0.029 | 0.101 | 98 | -0.07 |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.19 ± 0.017 | 0.0249 | 91.5 | -0.71 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | 4.42 ± 0.39 | 0.592 | 100 | 0.04 |
| 4-Formylaminoantipyrine | µg/l | - ± - | 3.5 ± 0.31 | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | 0.826 ± 0.072 | 0.258 | 78.2 | -0.89 |
| Acesulfame | µg/l | 1.97 ± 0.102 | 1.984 ± 0.17 | 0.336 | 100 | 0.03 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 1.56 ± 0.14 | 0.378 | 144 | 1.25 |
| Atenolol | µg/l | 0.377 ± 0.0648 | 0.288 ± 0.025 | 0.0792 | 76.3 | -1.13 |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 11.6 ± 1.02 | 1.33 | 104 | 0.37 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.43 ± 0.038 | 0.0554 | 101 | 0.07 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | 0.2728 ± 0.024 | 0.0369 | 98.8 | -0.09 |
| Diazepam | µg/l | 0.382 ± 0.0467 | 0.442 ± 0.039 | 0.0618 | 116 | 0.97 |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.57 ± 0.22 | 0.398 | 90.5 | -0.68 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | 0.042 ± 0.0037 | 0.0117 | 50.3 | -3.55 |
| Iopamidol | µg/l | 32.8 ± 7.95 | 31.9 ± 2.79 | 11.3 | 97.1 | -0.08 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.098 ± 0.0086 | 0.0587 | 41.7 | -2.33 |
| Saccharin | µg/l | 1.39 ± 0.0833 | 1.29 ± 0.11 | 0.306 | 92.7 | -0.33 |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.181 ± 0.016 | 0.0452 | 88.1 | -0.54 |
| Sucralose | µg/l | - ± - | 12.4 ± 1.09 | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.046 ± 0.004 | 0.00532 | 104 | 0.31 |


Probe
AZ7 A
AZ7 B
4-Acetylaminoantipyrine
4-Formylaminoantipyrine
10,11-Dihydro-10,11-Dihydroxycarbamazepine
Acesulfame
Amidotrizoic acid
Atenolol
Benzotriazole
Carbamazepine
Cyclamate
Diazepam
Diclofenac
Ibuprofen
Iopamidol
Metoprolol
Saccharin
Sotalol
Sucralose
Sulfamethoxazole
Merkmal
-3.6
-2.2
-2.3
-2
0
2
-2
0
2
Z-Score

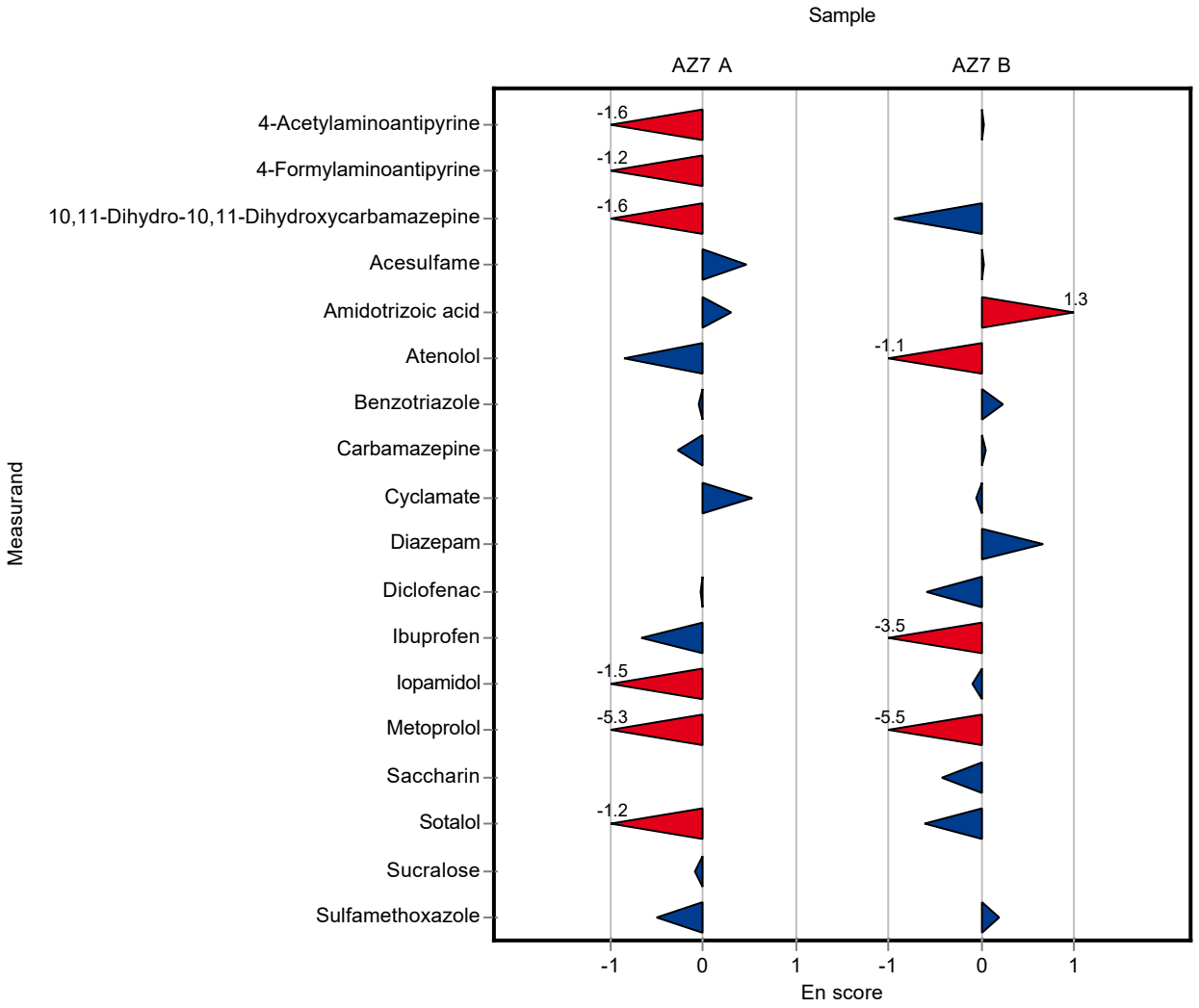
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.03 ± 0.0026 | 0.0067 | 73.8 | -1.56 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | 0.194 ± 0.017 | 0.0385 | 77.8 | -1.23 |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | 0.059 ± 0.0052 | 0.0175 | 70 | -1.56 |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.072 ± 0.0063 | 0.0112 | 110 | 0.48 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.498 ± 0.044 | 0.0876 | 107 | 0.32 |
| Atenolol | µg/l | 0.316 ± 0.0247 | 0.27 ± 0.024 | 0.0349 | 85.5 | -0.85 |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.146 ± 0.013 | 0.0177 | 99.1 | -0.05 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.287 ± 0.025 | 0.0391 | 95.4 | -0.27 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.0352 ± 0.0031 | 0.00533 | 113 | 0.53 |
| Diazepam | µg/l | - ± - | <0.01 (LOQ) ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.228 ± 0.02 | 0.0321 | 99.5 | -0.03 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.242 ± 0.021 | 0.0226 | 89.1 | -0.67 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.228 ± 0.02 | 0.0687 | 72.7 | -1.49 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.065 ± 0.0057 | 0.0368 | 44.1 | -5.31 |
| Saccharin | µg/l | - ± - | 0.019 ± 0.0017 | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.133 ± 0.012 | 0.0368 | 79.5 | -1.22 |
| Sucralose | µg/l | 0.337 ± 0.0483 | 0.33 ± 0.029 | 0.101 | 98 | -0.09 |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.19 ± 0.017 | 0.0249 | 91.5 | -0.49 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | 4.42 ± 0.39 | 0.592 | 100 | 0.02 |
| 4-Formylaminoantipyrine | µg/l | - ± - | 3.5 ± 0.31 | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | 0.826 ± 0.072 | 0.258 | 78.2 | -0.95 |
| Acesulfame | µg/l | 1.97 ± 0.102 | 1.984 ± 0.17 | 0.336 | 100 | 0.03 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 1.56 ± 0.14 | 0.378 | 144 | 1.32 |
| Atenolol | µg/l | 0.377 ± 0.0648 | 0.288 ± 0.025 | 0.0792 | 76.3 | -1.09 |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 11.6 ± 1.02 | 1.33 | 104 | 0.23 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.43 ± 0.038 | 0.0554 | 101 | 0.04 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | 0.2728 ± 0.024 | 0.0369 | 98.8 | -0.06 |
| Diazepam | µg/l | 0.382 ± 0.0467 | 0.442 ± 0.039 | 0.0618 | 116 | 0.66 |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.57 ± 0.22 | 0.398 | 90.5 | -0.60 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | 0.042 ± 0.0037 | 0.0117 | 50.3 | -3.46 |
| Iopamidol | µg/l | 32.8 ± 7.95 | 31.9 ± 2.79 | 11.3 | 97.1 | -0.10 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.098 ± 0.0086 | 0.0587 | 41.7 | -5.46 |
| Saccharin | µg/l | 1.39 ± 0.0833 | 1.29 ± 0.11 | 0.306 | 92.7 | -0.43 |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.181 ± 0.016 | 0.0452 | 88.1 | -0.61 |
| Sucralose | µg/l | - ± - | 12.4 ± 1.09 | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.046 ± 0.004 | 0.00532 | 104 | 0.19 |


Sample
AZ7 A
AZ7 B
Measurand
4-Acetylaminoantipyrine
4-Formylaminoantipyrine
10,11-Dihydro-10,11-Dihydroxycarbamazepine
Acesulfame
Amidotrizoic acid
Atenolol
Benzotriazole
Carbamazepine
Cyclamate
Diazepam
Diclofenac
Ibuprofen
Iopamidol
Metoprolol
Saccharin
Sotalol
Sucralose
Sulfamethoxazole
-1.6
-1.2
-1.6
1.3
-1.1
-3.5
-1.5
-5.3
-5.5
-1.2
-1
0
1
En score

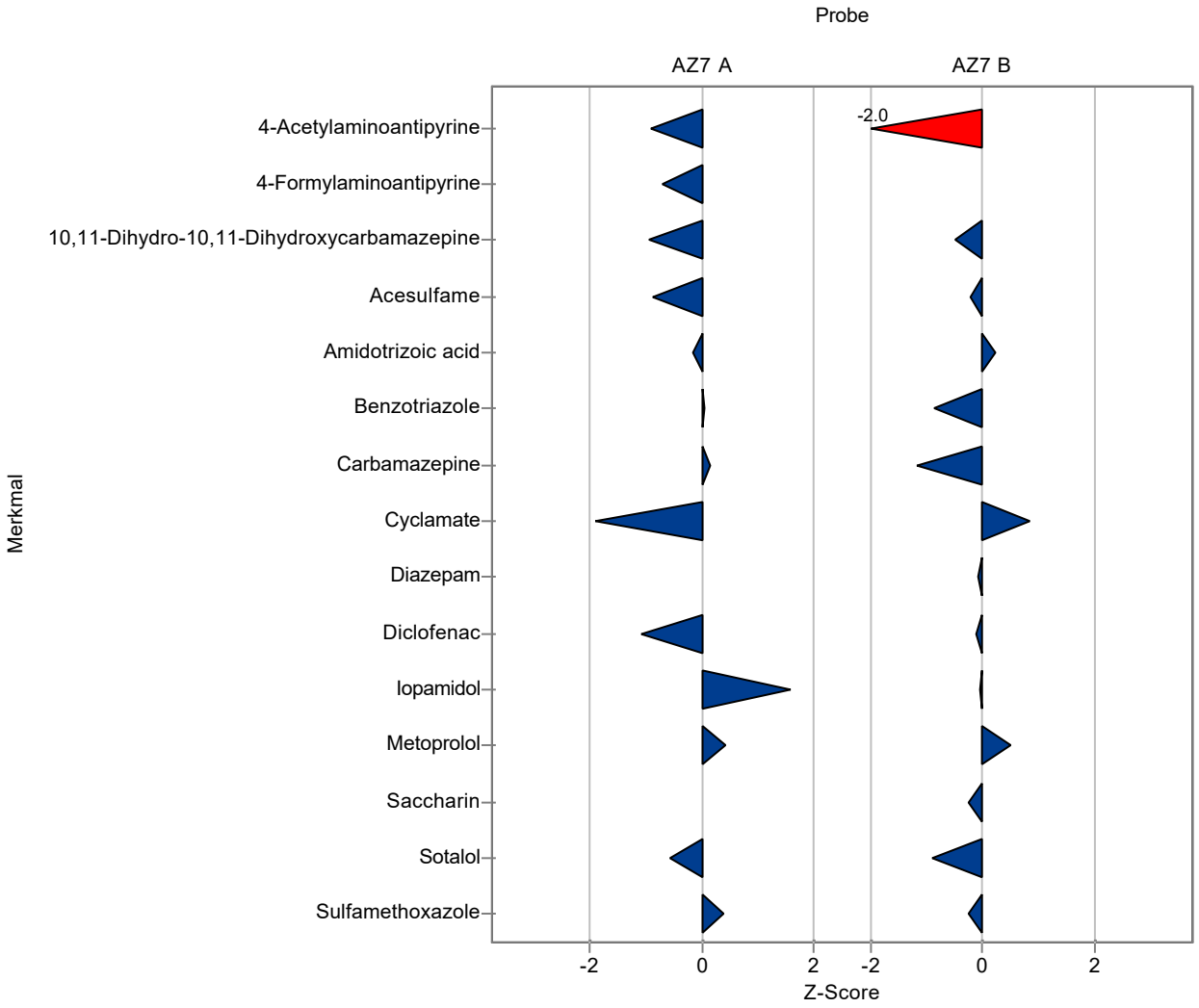
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.0346 ± 0.011 | 0.0067 | 85.1 | -0.91 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | 0.222 ± 0.049 | 0.0385 | 89.1 | -0.71 |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | 0.0674 ± 0.018 | 0.0175 | 80 | -0.96 |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.056 ± 0.011 | 0.0112 | 85.2 | -0.87 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.449 ± 0.081 | 0.0876 | 96.8 | -0.17 |
| Atenolol | µg/l | 0.316 ± 0.0247 | - ± - | 0.0349 | - | - |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.148 ± 0.03 | 0.0177 | 100 | 0.04 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.307 ± 0.061 | 0.0391 | 102 | 0.16 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.021 ± 0.004 | 0.00533 | 67.5 | -1.90 |
| Diazepam | µg/l | - ± - | <0.01 (LOQ) ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.194 ± 0.058 | 0.0321 | 84.7 | -1.09 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | - ± - | 0.0226 | - | - |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.421 ± 0.114 | 0.0687 | 134 | 1.56 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.163 ± 0.033 | 0.0368 | 111 | 0.43 |
| Saccharin | µg/l | - ± - | 0.018 ± 0.004 | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.146 ± 0.054 | 0.0368 | 87.3 | -0.58 |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.217 ± 0.065 | 0.0249 | 104 | 0.37 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | 3.19 ± 0.989 | 0.592 | 72.5 | -2.04 |
| 4-Formylaminoantipyrine | µg/l | - ± - | 2.6 ± 0.572 | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | 0.935 ± 0.253 | 0.258 | 88.5 | -0.47 |
| Acesulfame | µg/l | 1.97 ± 0.102 | 1.9 ± 0.38 | 0.336 | 96.2 | -0.22 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 1.17 ± 0.211 | 0.378 | 108 | 0.22 |
| Atenolol | µg/l | 0.377 ± 0.0648 | - ± - | 0.0792 | - | - |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 9.96 ± 2 | 1.33 | 89.6 | -0.86 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.362 ± 0.072 | 0.0554 | 84.9 | -1.16 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | 0.307 ± 0.052 | 0.0369 | 111 | 0.84 |
| Diazepam | µg/l | 0.382 ± 0.0467 | 0.378 ± 0.087 | 0.0618 | 98.9 | -0.07 |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.8 ± 0.84 | 0.398 | 98.6 | -0.10 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | - ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | 32.55 ± 8.789 | 11.3 | 99.1 | -0.03 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.264 ± 0.053 | 0.0587 | 112 | 0.50 |
| Saccharin | µg/l | 1.39 ± 0.0833 | 1.32 ± 0.304 | 0.306 | 94.9 | -0.23 |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.165 ± 0.061 | 0.0452 | 80.3 | -0.90 |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.043 ± 0.013 | 0.00532 | 96.9 | -0.26 |


Probe
AZ7 A
AZ7 B
-2.0
4-Acetylaminoantipyrine
4-Formylaminoantipyrine
10,11-Dihydro-10,11-Dihydroxycarbamazepine
Acesulfame
Amidotrizoic acid
Benzotriazole
Carbamazepine
Cyclamate
Diazepam
Diclofenac
Iopamidol
Metoprolol
Saccharin
Sotalol
Sulfamethoxazole
Merkmal
-2
0
2
-2
0
2
Z-Score

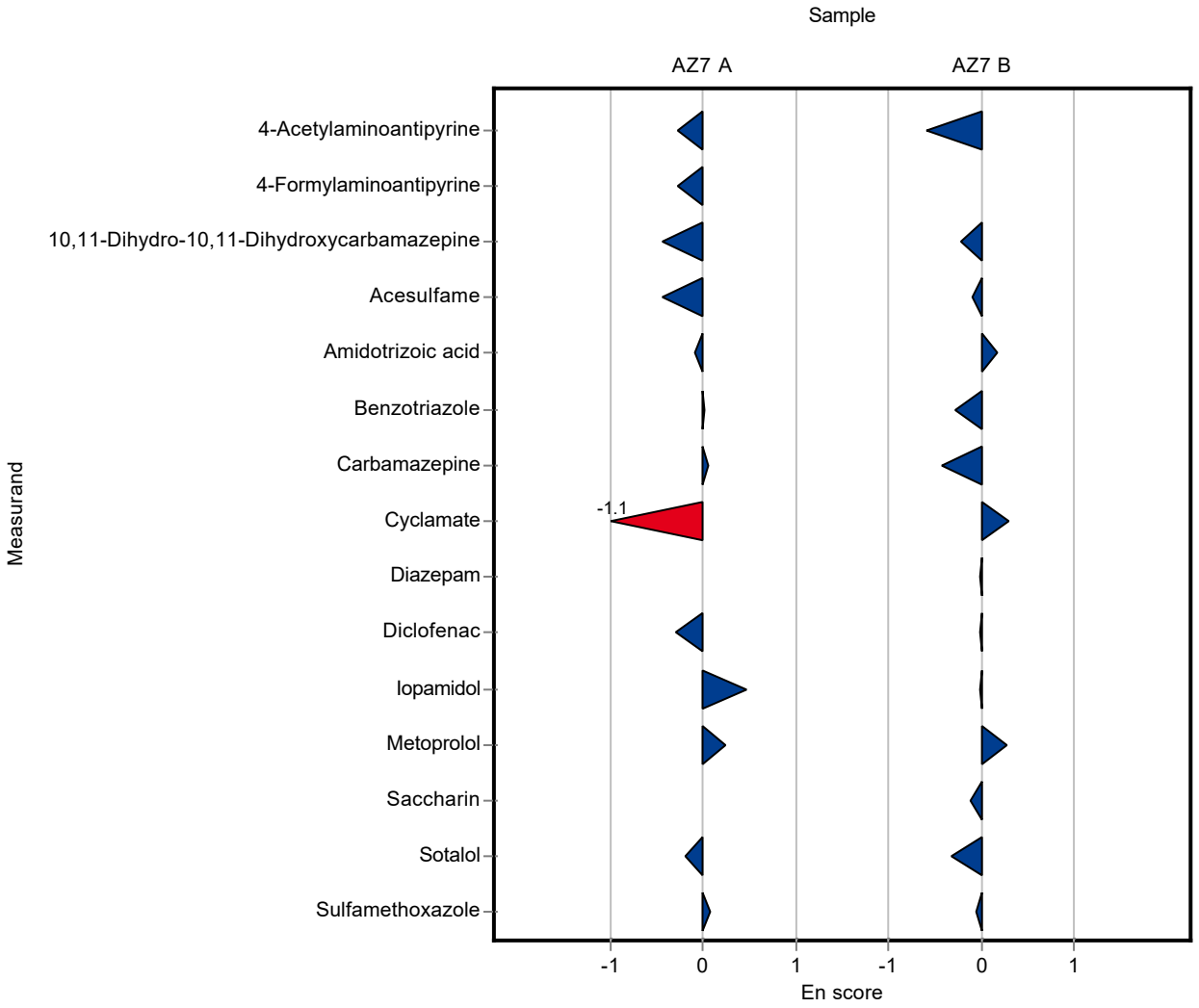
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.0346 ± 0.011 | 0.0067 | 85.1 | -0.27 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | 0.222 ± 0.049 | 0.0385 | 89.1 | -0.27 |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | 0.0674 ± 0.018 | 0.0175 | 80 | -0.44 |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.056 ± 0.011 | 0.0112 | 85.2 | -0.43 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.449 ± 0.081 | 0.0876 | 96.8 | -0.09 |
| Atenolol | µg/l | 0.316 ± 0.0247 | - ± - | 0.0349 | - | - |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.148 ± 0.03 | 0.0177 | 100 | 0.01 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.307 ± 0.061 | 0.0391 | 102 | 0.05 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.021 ± 0.004 | 0.00533 | 67.5 | -1.10 |
| Diazepam | µg/l | - ± - | <0.01 (LOQ) ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.194 ± 0.058 | 0.0321 | 84.7 | -0.30 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | - ± - | 0.0226 | - | - |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.421 ± 0.114 | 0.0687 | 134 | 0.46 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.163 ± 0.033 | 0.0368 | 111 | 0.23 |
| Saccharin | µg/l | - ± - | 0.018 ± 0.004 | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.146 ± 0.054 | 0.0368 | 87.3 | -0.20 |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.217 ± 0.065 | 0.0249 | 104 | 0.07 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | 3.19 ± 0.989 | 0.592 | 72.5 | -0.60 |
| 4-Formylaminoantipyrine | µg/l | - ± - | 2.6 ± 0.572 | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | 0.935 ± 0.253 | 0.258 | 88.5 | -0.22 |
| Acesulfame | µg/l | 1.97 ± 0.102 | 1.9 ± 0.38 | 0.336 | 96.2 | -0.10 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 1.17 ± 0.211 | 0.378 | 108 | 0.18 |
| Atenolol | µg/l | 0.377 ± 0.0648 | - ± - | 0.0792 | - | - |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 9.96 ± 2 | 1.33 | 89.6 | -0.29 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.362 ± 0.072 | 0.0554 | 84.9 | -0.44 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | 0.307 ± 0.052 | 0.0369 | 111 | 0.29 |
| Diazepam | µg/l | 0.382 ± 0.0467 | 0.378 ± 0.087 | 0.0618 | 98.9 | -0.02 |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.8 ± 0.84 | 0.398 | 98.6 | -0.02 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | - ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | 32.55 ± 8.789 | 11.3 | 99.1 | -0.02 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.264 ± 0.053 | 0.0587 | 112 | 0.27 |
| Saccharin | µg/l | 1.39 ± 0.0833 | 1.32 ± 0.304 | 0.306 | 94.9 | -0.12 |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.165 ± 0.061 | 0.0452 | 80.3 | -0.33 |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.043 ± 0.013 | 0.00532 | 96.9 | -0.05 |


Sample
AZ7 A
AZ7 B
4-Acetylaminoantipyrine
4-Formylaminoantipyrine
10,11-Dihydro-10,11-Dihydroxycarbamazepine
Acesulfame
Amidotrizoic acid
Benzotriazole
Carbamazepine
Cyclamate
Diazepam
Diclofenac
Iopamidol
Metoprolol
Saccharin
Sotalol
Sulfamethoxazole
Measurand
-1.1
-1
0
1
-1
0
1
En score

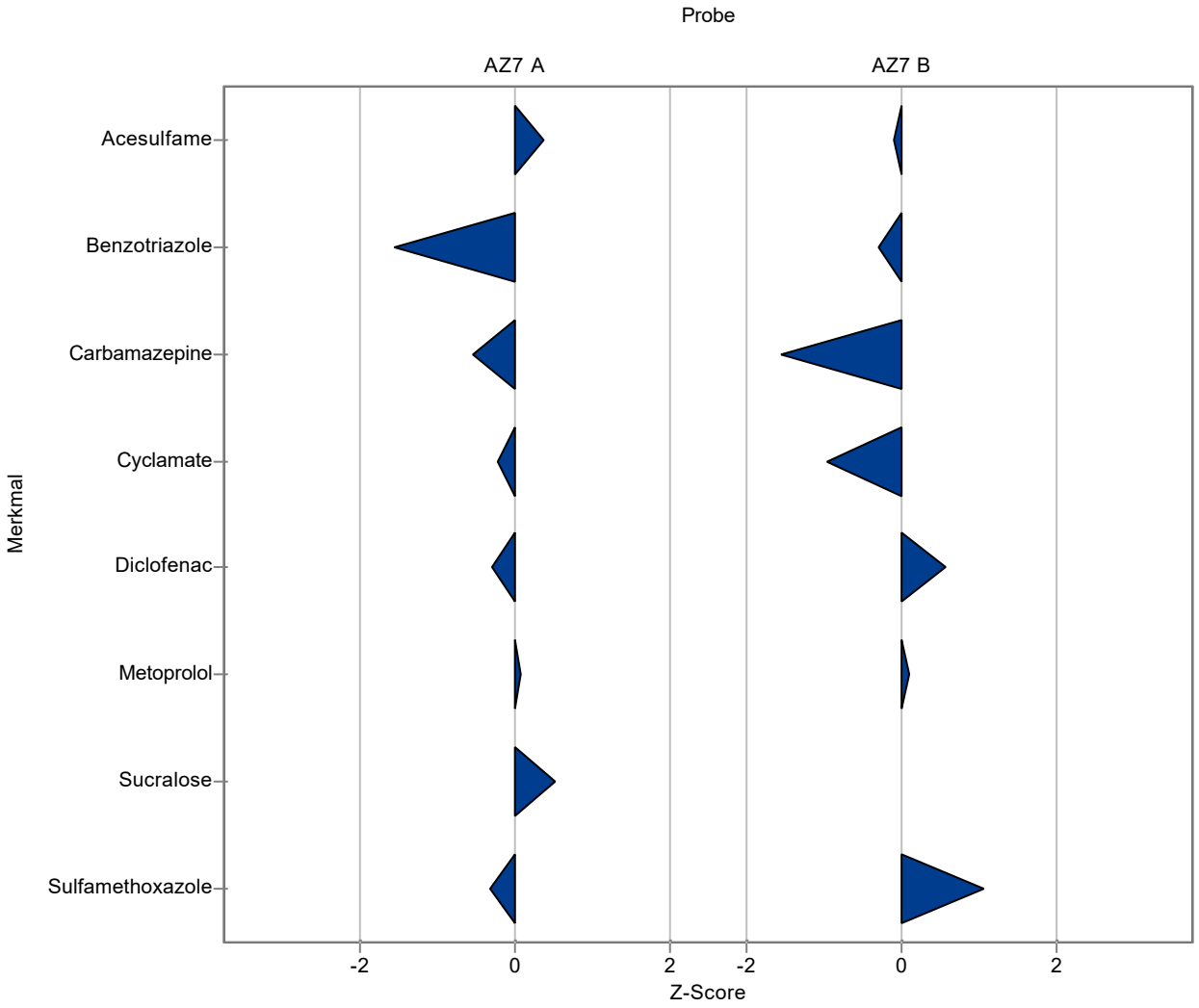
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | - ± - | 0.0067 | - | - |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | - ± - | 0.0175 | - | - |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.07 ± 0.01 | 0.0112 | 107 | 0.39 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | - ± - | 0.0876 | - | - |
| Atenolol | µg/l | 0.316 ± 0.0247 | - ± - | 0.0349 | - | - |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.12 ± 0.02 | 0.0177 | 81.5 | -1.54 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.28 ± 0.05 | 0.0391 | 93.1 | -0.53 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.03 ± 0.005 | 0.00533 | 96.4 | -0.21 |
| Diazepam | µg/l | - ± - | - ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.22 ± 0.04 | 0.0321 | 96 | -0.28 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | - ± - | 0.0226 | - | - |
| Iopamidol | µg/l | 0.314 ± 0.0414 | - ± - | 0.0687 | - | - |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.15 ± 0.03 | 0.0368 | 102 | 0.07 |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | - ± - | 0.0368 | - | - |
| Sucralose | µg/l | 0.337 ± 0.0483 | 0.39 ± 0.08 | 0.101 | 116 | 0.53 |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.2 ± 0.04 | 0.0249 | 96.3 | -0.31 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | - ± - | 0.592 | - | - |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | 1.94 ± 0.39 | 0.336 | 98.2 | -0.10 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | - ± - | 0.378 | - | - |
| Atenolol | µg/l | 0.377 ± 0.0648 | - ± - | 0.0792 | - | - |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 10.7 ± 1.93 | 1.33 | 96.3 | -0.31 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.34 ± 0.07 | 0.0554 | 79.8 | -1.56 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | 0.24 ± 0.05 | 0.0369 | 86.9 | -0.98 |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | 3.06 ± 0.55 | 0.398 | 108 | 0.55 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | - ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | - ± - | 11.3 | - | - |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.24 ± 0.05 | 0.0587 | 102 | 0.09 |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | - ± - | 0.0452 | - | - |
| Sucralose | µg/l | - ± - | 10.7 ± 1.93 | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.05 ± 0.01 | 0.00532 | 113 | 1.06 |


Probe
AZ7 A
AZ7 B
Acesulfame
Benzotriazole
Carbamazepine
Cyclamate
Diclofenac
Metoprolol
Sucralose
Sulfamethoxazole
Merkmal
-2
0
2
-2
0
2
Z-Score

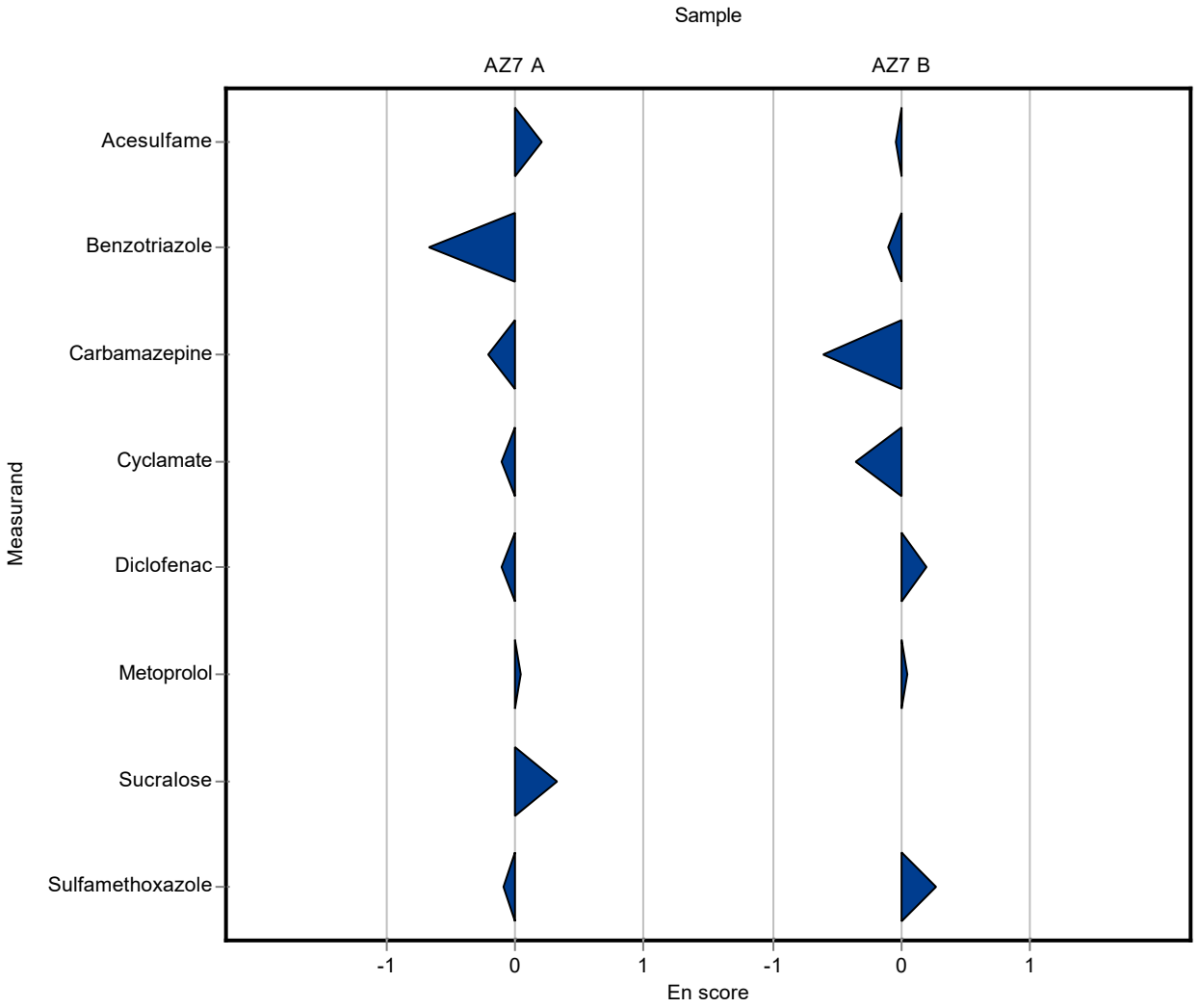
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | - ± - | 0.0067 | - | - |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | - ± - | 0.0385 | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | - ± - | 0.0175 | - | - |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.07 ± 0.01 | 0.0112 | 107 | 0.21 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | - ± - | 0.0876 | - | - |
| Atenolol | µg/l | 0.316 ± 0.0247 | - ± - | 0.0349 | - | - |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.12 ± 0.02 | 0.0177 | 81.5 | -0.67 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.28 ± 0.05 | 0.0391 | 93.1 | -0.21 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | 0.03 ± 0.005 | 0.00533 | 96.4 | -0.10 |
| Diazepam | µg/l | - ± - | - ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.22 ± 0.04 | 0.0321 | 96 | -0.11 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | - ± - | 0.0226 | - | - |
| Iopamidol | µg/l | 0.314 ± 0.0414 | - ± - | 0.0687 | - | - |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.15 ± 0.03 | 0.0368 | 102 | 0.04 |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | - ± - | 0.0368 | - | - |
| Sucralose | µg/l | 0.337 ± 0.0483 | 0.39 ± 0.08 | 0.101 | 116 | 0.32 |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.2 ± 0.04 | 0.0249 | 96.3 | -0.10 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | - ± - | 0.592 | - | - |
| 4-Formylaminoantipyrine | µg/l | - ± - | - ± - | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | 1.94 ± 0.39 | 0.336 | 98.2 | -0.04 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | - ± - | 0.378 | - | - |
| Atenolol | µg/l | 0.377 ± 0.0648 | - ± - | 0.0792 | - | - |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 10.7 ± 1.93 | 1.33 | 96.3 | -0.11 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.34 ± 0.07 | 0.0554 | 79.8 | -0.60 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | 0.24 ± 0.05 | 0.0369 | 86.9 | -0.35 |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | 3.06 ± 0.55 | 0.398 | 108 | 0.20 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | - ± - | 0.0117 | - | - |
| Iopamidol | µg/l | 32.8 ± 7.95 | - ± - | 11.3 | - | - |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.24 ± 0.05 | 0.0587 | 102 | 0.05 |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | - ± - | 0.0452 | - | - |
| Sucralose | µg/l | - ± - | 10.7 ± 1.93 | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.05 ± 0.01 | 0.00532 | 113 | 0.28 |


Sample
AZ7 A
AZ7 B
Acesulfame
Benzotriazole
Carbamazepine
Cyclamate
Diclofenac
Metoprolol
Sucralose
Sulfamethoxazole
Measurand
-1
0
1
-1
0
1
En score

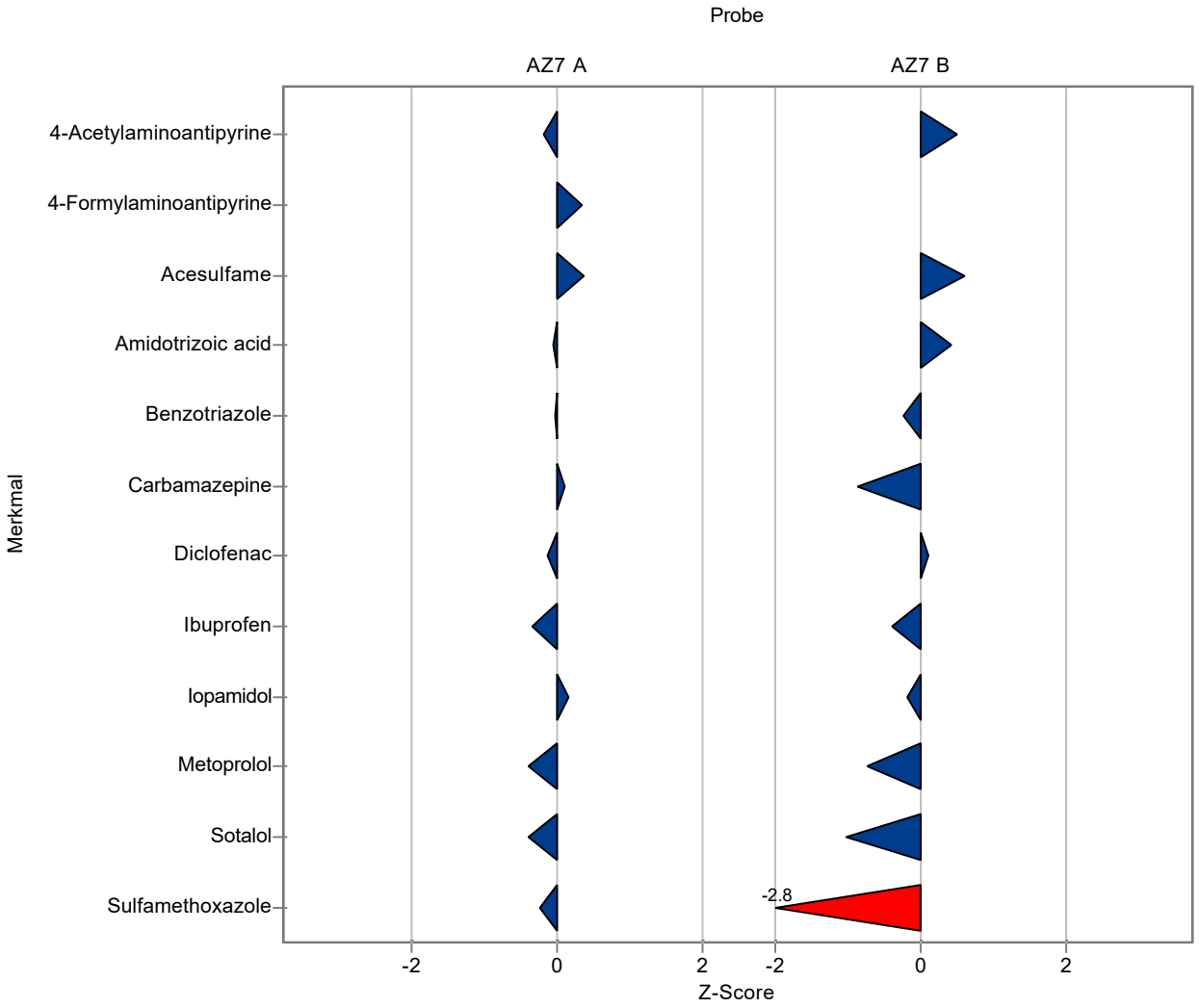
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.0395 ± 0.004 | 0.0067 | 97.1 | -0.18 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | 0.263 ± 0.026 | 0.0385 | 106 | 0.36 |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | - ± - | 0.0175 | - | - |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.07 ± 0.0053 | 0.0112 | 107 | 0.39 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.461 ± 0.058 | 0.0876 | 99.4 | -0.03 |
| Atenolol | µg/l | 0.316 ± 0.0247 | - ± - | 0.0349 | - | - |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.147 ± 0.018 | 0.0177 | 99.8 | -0.02 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.305 ± 0.043 | 0.0391 | 101 | 0.11 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | - ± - | 0.00533 | - | - |
| Diazepam | µg/l | - ± - | - ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.225 ± 0.018 | 0.0321 | 98.2 | -0.13 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.264 ± 0.021 | 0.0226 | 97.2 | -0.34 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.325 ± 0.039 | 0.0687 | 104 | 0.17 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.133 ± 0.015 | 0.0368 | 90.3 | -0.39 |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.153 ± 0.012 | 0.0368 | 91.5 | -0.39 |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.202 ± 0.029 | 0.0249 | 97.3 | -0.23 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | 4.7 ± 0.47 | 0.592 | 107 | 0.51 |
| 4-Formylaminoantipyrine | µg/l | - ± - | 3.5 ± 0.35 | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | 2.18 ± 0.164 | 0.336 | 110 | 0.61 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 1.25 ± 0.156 | 0.378 | 115 | 0.43 |
| Atenolol | µg/l | 0.377 ± 0.0648 | - ± - | 0.0792 | - | - |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | z-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 10.8 ± 1.35 | 1.33 | 97.2 | -0.23 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.379 ± 0.053 | 0.0554 | 88.9 | -0.85 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | - ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.89 ± 0.23 | 0.398 | 102 | 0.12 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | 0.079 ± 0.0063 | 0.0117 | 94.6 | -0.39 |
| Iopamidol | µg/l | 32.8 ± 7.95 | 30.8 ± 3.7 | 11.3 | 93.8 | -0.18 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.192 ± 0.021 | 0.0587 | 81.7 | -0.73 |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.16 ± 0.012 | 0.0452 | 77.8 | -1.01 |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.0295 ± 0.0043 | 0.00532 | 66.5 | -2.79 |


Probe
AZ7 A
AZ7 B
4-Acetylaminoantipyrine
4-Formylaminoantipyrine
Acesulfame
Amidotrizoic acid
Benzotriazole
Carbamazepine
Diclofenac
Ibuprofen
Iopamidol
Metoprolol
Sotalol
Sulfamethoxazole
Merkmal
-2.8
-2
0
2
-2
0
2
Z-Score

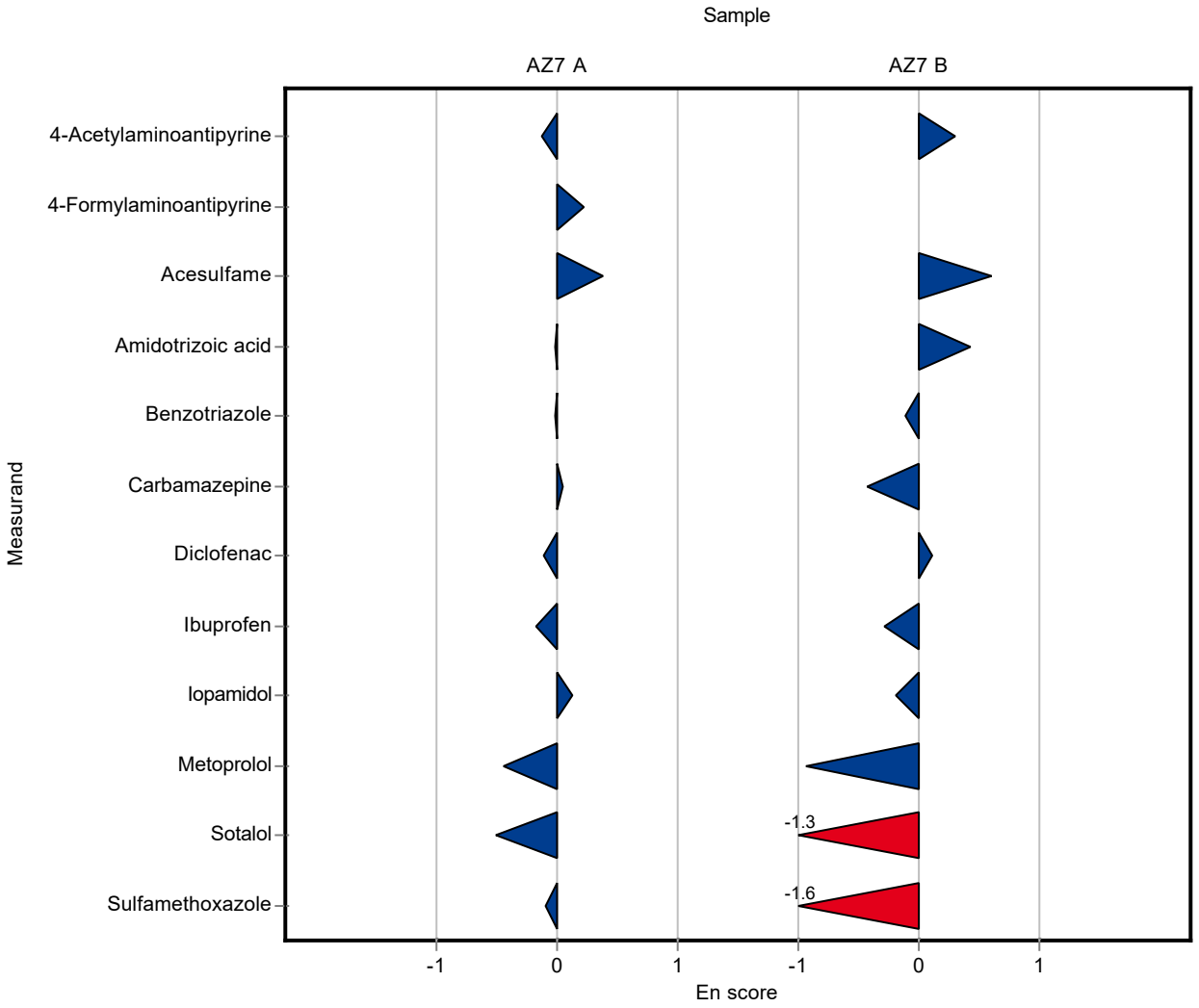
## Sample: AZ7A

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 0.0407 ± 0.00447 | 0.0395 ± 0.004 | 0.0067 | 97.1 | -0.13 |
| 4-Formylaminoantipyrine | µg/l | 0.249 ± 0.0291 | 0.263 ± 0.026 | 0.0385 | 106 | 0.23 |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 0.0843 ± 0.0124 | - ± - | 0.0175 | - | - |
| Acesulfame | µg/l | 0.0657 ± 0.00386 | 0.07 ± 0.0053 | 0.0112 | 107 | 0.38 |
| Amidotrizoic acid | µg/l | 0.464 ± 0.0635 | 0.461 ± 0.058 | 0.0876 | 99.4 | -0.02 |
| Atenolol | µg/l | 0.316 ± 0.0247 | - ± - | 0.0349 | - | - |
| Benzotriazole | µg/l | 0.147 ± 0.00852 | 0.147 ± 0.018 | 0.0177 | 99.8 | -0.01 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.301 ± 0.0116 | 0.305 ± 0.043 | 0.0391 | 101 | 0.05 |
| Cyclamate | µg/l | 0.0311 ± 0.00459 | - ± - | 0.00533 | - | - |
| Diazepam | µg/l | - ± - | - ± - | - | - | - |
| Diclofenac | µg/l | 0.229 ± 0.0172 | 0.225 ± 0.018 | 0.0321 | 98.2 | -0.10 |
| Ibuprofen | µg/l | 0.272 ± 0.0143 | 0.264 ± 0.021 | 0.0226 | 97.2 | -0.17 |
| Iopamidol | µg/l | 0.314 ± 0.0414 | 0.325 ± 0.039 | 0.0687 | 104 | 0.13 |
| Metoprolol | µg/l | 0.147 ± 0.0105 | 0.133 ± 0.015 | 0.0368 | 90.3 | -0.45 |
| Saccharin | µg/l | - ± - | - ± - | - | - | - |
| Sotalol | µg/l | 0.167 ± 0.0145 | 0.153 ± 0.012 | 0.0368 | 91.5 | -0.51 |
| Sucralose | µg/l | 0.337 ± 0.0483 | - ± - | 0.101 | - | - |
| Sulfamethoxazole | µg/l | 0.208 ± 0.0115 | 0.202 ± 0.029 | 0.0249 | 97.3 | -0.10 |

## Sample: AZ7B

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| 4-Acetylaminoantipyrine | µg/l | 4.4 ± 0.419 | 4.7 ± 0.47 | 0.592 | 107 | 0.29 |
| 4-Formylaminoantipyrine | µg/l | - ± - | 3.5 ± 0.35 | - | - | - |
| 10,11-Dihydro-10,11-Dihydroxycarbamazepine | µg/l | 1.06 ± 0.194 | - ± - | 0.258 | - | - |
| Acesulfame | µg/l | 1.97 ± 0.102 | 2.18 ± 0.164 | 0.336 | 110 | 0.60 |
| Amidotrizoic acid | µg/l | 1.09 ± 0.223 | 1.25 ± 0.156 | 0.378 | 115 | 0.43 |
| Atenolol | µg/l | 0.377 ± 0.0648 | - ± - | 0.0792 | - | - |

| Parameter | Unit | Assigned value ± U (k=2) | Result ± U | Criterion | Recovery [%] | En-Score |
|---|---|---|---|---|---|---|
| Benzotriazole | µg/l | 11.1 ± 0.511 | 10.8 ± 1.35 | 1.33 | 97.2 | -0.11 |
| Bisoprolol | µg/l | - ± - | - ± - | - | - | - |
| Carbamazepine | µg/l | 0.426 ± 0.0317 | 0.379 ± 0.053 | 0.0554 | 88.9 | -0.43 |
| Cyclamate | µg/l | 0.276 ± 0.0279 | - ± - | 0.0369 | - | - |
| Diazepam | µg/l | 0.382 ± 0.0467 | - ± - | 0.0618 | - | - |
| Diclofenac | µg/l | 2.84 ± 0.103 | 2.89 ± 0.23 | 0.398 | 102 | 0.10 |
| Ibuprofen | µg/l | 0.0835 ± 0.00942 | 0.079 ± 0.0063 | 0.0117 | 94.6 | -0.29 |
| Iopamidol | µg/l | 32.8 ± 7.95 | 30.8 ± 3.7 | 11.3 | 93.8 | -0.19 |
| Metoprolol | µg/l | 0.235 ± 0.0183 | 0.192 ± 0.021 | 0.0587 | 81.7 | -0.94 |
| Saccharin | µg/l | 1.39 ± 0.0833 | - ± - | 0.306 | - | - |
| Sotalol | µg/l | 0.206 ± 0.0241 | 0.16 ± 0.012 | 0.0452 | 77.8 | -1.34 |
| Sucralose | µg/l | - ± - | - ± - | - | - | - |
| Sulfamethoxazole | µg/l | 0.0444 ± 0.00343 | 0.0295 ± 0.0043 | 0.00532 | 66.5 | -1.60 |


Sample
AZ7 A
AZ7 B
4-Acetylaminoantipyrine
4-Formylaminoantipyrine
Acesulfame
Amidotrizoic acid
Benzotriazole
Carbamazepine
Diclofenac
Ibuprofen
Iopamidol
Metoprolol
Sotalol
Sulfamethoxazole
Measurand
-1.3
-1.6
-1
0
1
-1
0
1
En score

# E9. Methodenübersicht / Overview of methods

| LabCode | Sample | Sucralose | Benzotriazole | Carbamazepine | Acesulfame |
|---|---|---|---|---|---|
| LC0001 | AZ7A | | OnlineSPE LC-MS/MS; | OnlineSPE LC-MS/MS; | |
| LC0002 | AZ7A | | LC-MS/MS direct;6495C | LC-MS/MS direct;6495C | LC-MS/MS direct;6495A |
| LC0003 | AZ7A | | | | |
| LC0004 | AZ7A | | | | LC-MS/MS direct; |
| LC0005 | AZ7A | | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0006 | AZ7A | | | LC-MS/MS direct; | |
| LC0007 | AZ7A | | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-36 |
| LC0008 | AZ7A | LC-MS/MS direct;DIN 38407-36 | LC-MS/MS direct;DIN 38407-36 | LC-MS/MS direct;DIN 38407-35 | LC-MS/MS direct;DIN 38407-36 |
| LC0009 | AZ7A | LC-MS/MS; | | LC-MS/MS direct;DIN 38407-36 | LC-MS/MS; |
| LC0010 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0011 | AZ7A | | LC-MS/MS; | LC-MS/MS; | LC-MS/MS; |
| LC0012 | AZ7A | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; |
| LC0013 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-36 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0014 | AZ7A | | LC-HRMS direct; | LC-HRMS direct; | LC-HRMS direct; |
| LC0015 | AZ7A | LC-MS/MS; | LC-MS/MS; | LC-MS/MS; | LC-MS/MS; |
| LC0016 | AZ7A | | LC-MS/MS direct;DIN 38407-36 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-36 |
| LC0001 | AZ7B | | OnlineSPE LC-MS/MS; | OnlineSPE LC-MS/MS; | |
| LC0002 | AZ7B | | LC-MS/MS direct;6495C | LC-MS/MS direct;6495C | |
| LC0003 | AZ7B | | | | |
| LC0004 | AZ7B | | | | LC-MS/MS direct; |
| LC0005 | AZ7B | | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0006 | AZ7B | | | LC-MS/MS direct; | |
| LC0007 | AZ7B | | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-36 |
| LC0008 | AZ7B | | | | |
| LC0009 | AZ7B | LC-MS/MS; | | LC-MS/MS; | LC-MS/MS; |
| LC0010 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0011 | AZ7B | | LC-MS/MS; | LC-MS/MS; | LC-MS/MS; |
| LC0012 | AZ7B | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; |
| LC0013 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-36 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0014 | AZ7B | | LC-HRMS direct; | LC-HRMS direct; | LC-HRMS direct; |
| LC0015 | AZ7B | LC-MS/MS; | LC-MS/MS; | LC-MS/MS; | LC-MS/MS; |
| LC0016 | AZ7B | | LC-MS/MS direct;DIN 38407-36 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-36 |

| LabCode | Sample | Sulfamethoxazole | Diclofenac | Sotalol | Ibuprofen |
|---|---|---|---|---|---|
| LC0001 | AZ7A | | OnlineSPE LC-MS/MS; | | |
| LC0002 | AZ7A | LC-MS/MS direct;6495C | LC-MS/MS direct;6495C | LC-MS/MS direct;6495C | LC-MS/MS direct;6495C |
| LC0003 | AZ7A | | | | |
| LC0004 | AZ7A | | LC-MS/MS direct;DIN 38407-35 | | LC-MS/MS direct;DIN 38407-35 |
| LC0005 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | | LC-MS/MS direct;DIN 38407-47 |
| LC0006 | AZ7A | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; |
| LC0007 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0008 | AZ7A | LC-MS/MS direct;DIN 38407-36 | LC-MS/MS direct;DIN 38407-35 | LC-MS/MS direct;DIN 38407-36 | LC-MS/MS direct;DIN 38407-35 |
| LC0009 | AZ7A | LC-MS/MS direct;DIN 38407-36 | LC-MS/MS direct;DIN 38407-36 | | |
| LC0010 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0011 | AZ7A | LC-MS/MS; | LC-MS/MS; | LC-MS/MS; | |
| LC0012 | AZ7A | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; |
| LC0013 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0014 | AZ7A | LC-HRMS direct; | LC-HRMS direct; | LC-MS/MS direct; | |
| LC0015 | AZ7A | LC-MS/MS; | LC-MS/MS; | | |
| LC0016 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0001 | AZ7B | | OnlineSPE LC-MS/MS; | | |
| LC0002 | AZ7B | LC-MS/MS direct;6495C | LC-MS/MS direct;6495C | LC-MS/MS direct;6495C | LC-MS/MS direct;6495C |
| LC0003 | AZ7B | | | | |
| LC0004 | AZ7B | | LC-MS/MS direct;DIN 38407-35 | | LC-MS/MS direct;DIN 38407-35 |
| LC0005 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | | LC-MS/MS direct;DIN 38407-47 |
| LC0006 | AZ7B | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; |
| LC0007 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0008 | AZ7B | | | | |
| LC0009 | AZ7B | LC-MS/MS; | LC-MS/MS; | | |
| LC0010 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0011 | AZ7B | LC-MS/MS; | LC-MS/MS; | LC-MS/MS; | |
| LC0012 | AZ7B | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; |
| LC0013 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0014 | AZ7B | LC-HRMS direct; | LC-HRMS direct; | LC-MS/MS direct; | |
| LC0015 | AZ7B | LC-MS/MS; | LC-MS/MS; | | |
| LC0016 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |

| LabCode | Sample | Diazepam | Metoprolol | Cyclamate | Saccharin |
|---|---|---|---|---|---|
| LC0001 | AZ7A | | OnlineSPE LC-MS/MS; | | |
| LC0002 | AZ7A | | LC-MS/MS direct;6495C | | |
| LC0003 | AZ7A | | | | |
| LC0004 | AZ7A | GC-MS (SPE); | | | |
| LC0005 | AZ7A | | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0006 | AZ7A | LC-MS/MS direct; | LC-MS/MS direct; | | |
| LC0007 | AZ7A | | LC-MS/MS direct;DIN 38407-47 | | |
| LC0008 | AZ7A | LC-MS/MS direct;DIN 38407-36 | LC-MS/MS direct;DIN 38407-36 | LC-MS/MS direct;DIN 38407-36 | LC-MS/MS direct;DIN 38407-36 |
| LC0009 | AZ7A | | | LC-MS/MS; | LC-MS/MS; |
| LC0010 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0011 | AZ7A | LC-MS/MS; | LC-MS/MS; | | |
| LC0012 | AZ7A | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; |
| LC0013 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0014 | AZ7A | LC-MS/MS direct; | LC-HRMS direct; | LC-MS (enrichment F10); | LC-MS (enrichment F10.10); |
| LC0015 | AZ7A | | LC-MS/MS; | LC-MS/MS; | |
| LC0016 | AZ7A | | LC-MS/MS direct;DIN 38407-47 | | |
| LC0001 | AZ7B | | OnlineSPE LC-MS/MS; | | |
| LC0002 | AZ7B | | LC-MS/MS direct;6495C | | |
| LC0003 | AZ7B | | | | |
| LC0004 | AZ7B | GC-MS (SPE); | | | |
| LC0005 | AZ7B | | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0006 | AZ7B | LC-MS/MS direct; | LC-MS/MS direct; | | |
| LC0007 | AZ7B | | LC-MS/MS direct;DIN 38407-47 | | |
| LC0008 | AZ7B | | | | |
| LC0009 | AZ7B | | | LC-MS/MS; | LC-MS/MS; |
| LC0010 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0011 | AZ7B | LC-MS/MS; | LC-MS/MS; | | |
| LC0012 | AZ7B | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; |
| LC0013 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0014 | AZ7B | LC-MS/MS direct; | LC-HRMS direct; | LC-MS (enrichment F10); | LC-MS (enrichment F10); |
| LC0015 | AZ7B | | LC-MS/MS; | LC-MS/MS; | |
| LC0016 | AZ7B | | LC-MS/MS direct;DIN 38407-47 | | |

| LabCode | Sample | 4-Acetylaminoantipyrine | Amidotrizoic acid | Atenolol | Bisoprolol |
|---|---|---|---|---|---|
| LC0001 | AZ7A | | | | |
| LC0002 | AZ7A | LC-MS/MS direct;6495C | | LC-MS/MS direct;6495C | |
| LC0003 | AZ7A | | | | |
| LC0004 | AZ7A | | | | |
| LC0005 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0006 | AZ7A | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; |
| LC0007 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | |
| LC0008 | AZ7A | LC-MS/MS direct;DIN 38407-36 | LC-MS/MS direct;DIN 38407-47 | | |
| LC0009 | AZ7A | | LC-MS/MS; | | |
| LC0010 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0011 | AZ7A | | LC-MS/MS; | | |
| LC0012 | AZ7A | | LC-MS/MS direct; | LC-MS/MS direct; | |
| LC0013 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | |
| LC0014 | AZ7A | LC-MS/MS direct; | LC-MS (enrichment F10); | | |
| LC0015 | AZ7A | | | | |
| LC0016 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | | |
| LC0001 | AZ7B | | | | |
| LC0002 | AZ7B | LC-MS/MS direct;6495C | | LC-MS/MS direct;6495C | |
| LC0003 | AZ7B | | | | |
| LC0004 | AZ7B | | | | |
| LC0005 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0006 | AZ7B | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; | LC-MS/MS direct; |
| LC0007 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | |
| LC0008 | AZ7B | | | | |
| LC0009 | AZ7B | | LC-MS/MS; | | |
| LC0010 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0011 | AZ7B | | LC-MS/MS; | | |
| LC0012 | AZ7B | | LC-MS/MS direct; | LC-MS/MS direct; | |
| LC0013 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | |
| LC0014 | AZ7B | LC-MS/MS direct; | LC-MS (enrichment F10); | | |
| LC0015 | AZ7B | | | | |
| LC0016 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 | | |

| LabCode | Sample | 10,11-Dihydro-10,11-Dihydroxycarbamazepine | 4-Formylaminoantipyrine |
|---|---|---|---|
| LC0001 | AZ7A | | |
| LC0002 | AZ7A | | |
| LC0003 | AZ7A | | |
| LC0004 | AZ7A | | |
| LC0005 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0006 | AZ7A | | |
| LC0007 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0008 | AZ7A | LC-MS/MS direct;DIN 38407-35 | LC-MS/MS direct;DIN 38407-36 |
| LC0009 | AZ7A | | |
| LC0010 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0011 | AZ7A | | |
| LC0012 | AZ7A | LC-MS/MS direct; | |
| LC0013 | AZ7A | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0014 | AZ7A | LC-MS/MS direct; | LC-MS/MS direct; |
| LC0015 | AZ7A | | |
| LC0016 | AZ7A | | LC-MS/MS direct;DIN 38407-47 |
| LC0001 | AZ7B | | |
| LC0002 | AZ7B | | |
| LC0003 | AZ7B | | |
| LC0004 | AZ7B | | |
| LC0005 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0006 | AZ7B | | |
| LC0007 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0008 | AZ7B | | |
| LC0009 | AZ7B | | |
| LC0010 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0011 | AZ7B | | |
| LC0012 | AZ7B | LC-MS/MS direct; | |
| LC0013 | AZ7B | LC-MS/MS direct;DIN 38407-47 | LC-MS/MS direct;DIN 38407-47 |
| LC0014 | AZ7B | LC-MS/MS direct; | LC-MS/MS direct; |
| LC0015 | AZ7B | | |
| LC0016 | AZ7B | | LC-MS/MS direct;DIN 38407-47 |