

Certificate of Analysis

Name: Protein Hydrolysate Standard, 2.5 mM
Item: 80-6002-67
Lot: CR-6041

Lot Issue Date: 06-Feb 2018
Expiration Date: 31-Jan 2021

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system. The analyte concentrations were verified by a quality control laboratory and the true value and uncertainty value at the 95% confidence level for each analyte, calculated from the gravimetric measurements made during the manufacturing process, is listed below.

| Analyte | CAS# | True Value | True Value |
|-------------------|-------------|-------------------|------------|
| Taurine | 000107-35-7 | 0.313 ± 0.002 g/L | 2.50 mM |
| L-Aspartic acid | 000056-84-8 | 0.334 ± 0.002 g/L | 2.51 mM |
| L-Threonine | 000072-19-5 | 0.298 ± 0.001 g/L | 2.50 mM |
| L-Serine | 000056-45-1 | 0.264 ± 0.001 g/L | 2.51 mM |
| L-Glutamic acid | 000056-86-0 | 0.368 ± 0.002 g/L | 2.50 mM |
| L-Proline | 000147-85-3 | 0.289 ± 0.001 g/L | 2.51 mM |
| Glycine | 000056-40-6 | 0.188 ± 0.001 g/L | 2.50 mM |
| L-Alanine | 000056-41-7 | 0.224 ± 0.001 g/L | 2.51 mM |
| L-Valine | 000072-18-4 | 0.293 ± 0.001 g/L | 2.50 mM |
| L-Cystine | 000056-89-3 | 0.301 ± 0.002 g/L | 1.25 mM |
| L-Methionine | 000063-68-3 | 0.374 ± 0.002 g/L | 2.51 mM |
| L-Isoleucine | 000073-32-5 | 0.329 ± 0.002 g/L | 2.51 mM |
| L-Leucine | 000061-90-5 | 0.328 ± 0.002 g/L | 2.51 mM |
| L-Tyrosine | 000060-18-4 | 0.455 ± 0.002 g/L | 2.51 mM |
| L-Phenylalanine | 000063-91-2 | 0.415 ± 0.002 g/L | 2.51 mM |
| Ammonium chloride | 012125-02-9 | 0.117 ± 0.001 g/L | 2.19 mM |
| L-Lysine | 000056-87-1 | 0.366 ± 0.002 g/L | 2.50 mM |
| L-Histidine | 000071-00-1 | 0.389 ± 0.002 g/L | 2.51 mM |
| L-Arginine | 000074-79-3 | 0.438 ± 0.002 g/L | 2.51 mM |

Matrix: 0.1 N Hydrochloric Acid

Balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware were used in the manufacturing of these standards.


John Russo
President


Monica Bourgeois
Director of QA/RA