

Glentham Life Sciences Ltd Unit 5 Leafield Way Corsham SN13 9SW United Kingdom

t: +44 (0) 1225 667 798 f: +44 (0) 2033 978 909 e: info@glentham.com w: www.glentham.com

Certificate of Analysis

| Product Name | L-Threonine, GlenCell™, suitable for cell culture | |
|-------------------|---|--|
| Glentham Code | GM4012 | |
| CAS Number | 72-19-5 | |
| EINECS | 200-774-1 | |
| MDL Number | MFCD00064270 | |
| Batch Number | 133TLY | |
| Molecular Weight | 119.12 | |
| Molecular Formula | $C_4H_9NO_3$ | |
| Storage Temp. | +20°C | |
| | | |

| Property | Specification | Batch 133TLY |
|---------------------------|---|--------------------------|
| Physical Description | White crystals or crystalline powder | White crystalline powder |
| Identification | IR | Conforms |
| Solubility | Freely soluble in formic acid, soluble in water, practically insoluble in ethanol | Conforms |
| Solubility (10% in water) | Clear, colourless solution | Conforms |
| Transmittance | ≥ 98.0% (10% in water, 430nm, 10mm cell) | 100.0% |
| Specific Optical Rotation | -27.629.0 ° (C=6, H2O) | -28.4° |
| Chloride (CI) | ≤ 0.02% | ≤ 0.02% |
| Ammonium (NH4) | ≤ 0.02% | ≤ 0.02% |
| Sulphate (SO4) | ≤ 0.02% | ≤ 0.02% |
| Iron (Fe) | ≤ 10ppm | ≤ 10ppm |
| Heavy Metals (as Pb) | ≤ 10ppm | ≤ 5ppm |
| Arsenic (As2O3) | ≤ 1ppm | ≤ 1ppm |
| Related Substances | To pass test | Conforms |
| Loss on Drying | ≤ 0.2% | 0.00% |
| Sulphated Ash | ≤ 0.1% | 0.03% |
| рН | 5.2 - 6.2 (1% in water) | 5.7 |
| Endotoxins | ≤ 6.0EU/g | ≤ 3.0EU/g |
| Assay | 99.0 - 101.0 % | 100.0% |
| Origin | Non-animal origin | Conforms |

Specification Version v1.0

Manufacture Date 2019-02-08

Re-Test Date 2025-04-27

Glentham Life Sciences confirm that the above referenced product conformed to the information displayed in this document on the quality release date. Please check www.glentham.com or contact us using the details above for the current version of this document.

This document was generated electronically and is therefore valid without signature. © Glentham Life Sciences Ltd, 2025

Page 1 of 1 Printed: 2025-04-28 12:42:37