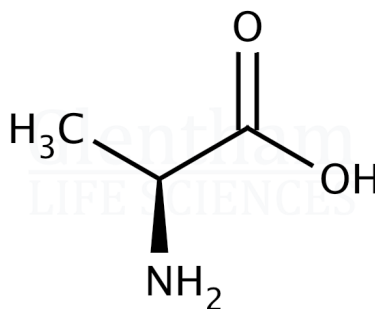


Certificate of Analysis

| | |
|-------------------|---|
| Product Name | L-Alanine, GlenCell™, suitable for cell culture |
| Glentham Code | GM0361 |
| CAS Number | 56-41-7 |
| EINECS | 200-273-8 |
| MDL Number | MFCD00064410 |
| Batch Number | 634AKK |
| Molecular Weight | 89.09 |
| Molecular Formula | C ₃ H ₇ NO ₂ |
| Storage Temp. | +20°C |



| Property | Specification | Batch 634AKK |
|---|--------------------------------------|--------------------------|
| Physical Description | White crystals or crystalline powder | White crystalline powder |
| Identification | IR | Conforms |
| Solubility (10% in water) | Clear, colourless solution | Conforms |
| Transmittance | ≥ 98.0% | 100.1% |
| Specific Optical Rotation | +14.3 - +15.2 ° | +14.5° |
| Chloride (Cl) | ≤ 0.02% | ≤ 0.02% |
| Ammonium (NH ₄) | ≤ 0.02% | ≤ 0.02% |
| Sulphate (SO ₄) | ≤ 0.02% | ≤ 0.02% |
| Iron (Fe) | ≤ 10ppm | ≤ 10ppm |
| Heavy Metals (as Pb) | ≤ 10ppm | ≤ 5ppm |
| Arsenic (As ₂ O ₃) | ≤ 1ppm | ≤ 1ppm |
| Any Unspecified Impurity | ≤ 0.1% | Not detected |
| Total Impurities | ≤ 0.5% | Not detected |
| Residue on Ignition | ≤ 0.1% | 0.00% |
| Loss on Drying | ≤ 0.2% | 0.02% |
| pH (10% in water) | 5.7 - 6.7 | 6.1 |
| Endotoxins | ≤ 6.0EU/g | ≤ 3.0EU/g |
| Assay | 99.0 - 101.0 % (dried basis) | 99.6% |
| Origin | Non-animal origin | Conforms |

| | |
|-----------------------|------------|
| Specification Version | v1.0 |
| Manufacture Date | 2018-06-12 |
| 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.

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