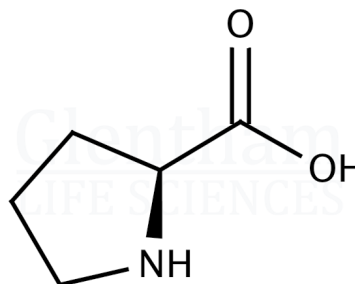


Certificate of Analysis

Product Name	L-Proline, GlenCell™, suitable for cell culture
Glenthams Code	GM9897
CAS Number	147-85-3
EINECS	205-702-2
MDL Number	MFCD00064318
Batch Number	892AND
Molecular Weight	115.13
Molecular Formula	C ₅ H ₉ NO ₂
Storage Temp.	+20°C



Property	Specification	Batch 892AND
Physical Description	White crystals or crystalline powder	White crystalline powder
Identification	IR	Conforms
Solubility (10% in water)	Clear, colourless solution	Conforms
Transmittance	≥ 98.0%	100.0%
Specific Optical Rotation	-84.5 - -86.0 °	-85.4°
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	≤ 0.2%	0.0%
Total Impurities	≤ 0.5%	0.0%
Residue on Ignition	≤ 0.1%	0.02%
Loss on Drying	≤ 0.25%	0.11%
pH (10% in water)	5.9 - 6.9	6.4
Endotoxins	≤ 6.0EU/g	≤ 3.0EU/g
Assay	99.0 - 101.0 % (dried basis)	99.8%
Origin	Non-animal origin	Conforms

Specification Version	v1.0
Manufacture Date	2022-12-02
Re-Test Date	2028-12-31

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

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