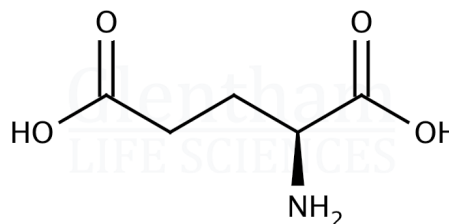


Product Specification

Product Name	L-Glutamic acid, GlenCell™, suitable for cell culture
Glenthams Code	GM8976
CAS Number	56-86-0
EINECS	200-293-7
Numéro MDL	MFCD00002634
Molecular Weight	147.13
Molecular Formula	C ₅ H ₉ NO ₄
Storage Temp.	+20°C



Property	Specification
Physical Description	White crystalline powder
Identification	To pass tests
Solubility (5% in water)	Clear, colourless solution
pH (1% in water)	3.0 - 3.5
Transmittance	≥ 98.0% (5% in water, 430nm, 10mm cell)
Specific Optical Rotation ([α] ₂₀ /D)	+31.5 - +32.2 °
Chloride (Cl)	≤ 0.02%
Sulphate (SO ₄)	≤ 0.02%
Ammonium (NH ₄)	≤ 0.02%
Iron (Fe)	≤ 10ppm
Arsenic (As ₂ O ₃)	≤ 1ppm
Heavy Metals (as Pb)	≤ 5ppm
Any Individual Impurity	≤ 0.2%
Total Impurities	≤ 0.6%
Sulphated Ash	≤ 0.1%
Loss on Drying	≤ 0.5%
Endotoxins	≤ 6EU/g
Assay	99.0 - 101.0 % (dried basis)
Pharmacopoeia Specification(s)	EP
Origin	Non-animal origin

Specification Version	- v1.0
Date Created	- 2017-12-22

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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