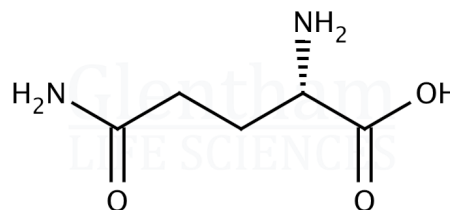


## Certificate of Analysis

Product Name	L-Alanyl-L-glutamine, GlenCell™, suitable for cell culture
Glentham Code	GE4398
CAS Number	39537-23-0
MDL Number	MFCD00133046
Batch Number	153BEM
Molecular Weight	217.22
Molecular Formula	$C_8H_{15}N_3O_4$
Storage Temp.	+20°C



Property	Specification	Batch 153BEM
Physical Description	White crystalline powder	Conforms
Identification	IR	Conforms
Specific Optical Rotation ( $[\alpha]_{20/D}$ )	+9.0 - +11.0 °	+10.2°
pH	5.0 - 6.0	5.4
Chloride (Cl)	≤ 0.02%	Conforms
Sulphate (SO <sub>4</sub> )	≤ 0.02%	Conforms
Ammonium (NH <sub>4</sub> )	≤ 0.02%	Conforms
Heavy Metals (as Pb)	≤ 5ppm	Conforms
Arsenic (As <sub>2</sub> O <sub>3</sub> )	≤ 1ppm	Conforms
Loss on Drying	≤ 0.5%	0.5%
Sulphated Ash	≤ 0.1%	0.03%
Bacterial Endotoxins	≤ 50EU/g	Conforms
Assay (dried basis)	98.0 - 102.0 %	100.3%
Origin	Non-animal origin	Conforms

Specification Version	v1.0
Manufacture Date	2023-05-23
Re-Test Date	2030-08-23

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](http://www.glentham.com) or contact us using the details above for the current version of this document.

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