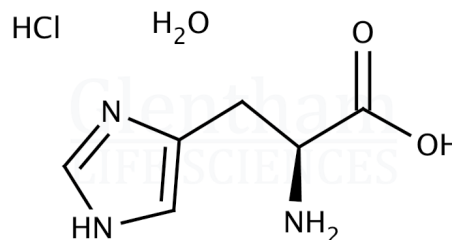


Certificate of Analysis

Product Name	L-Histidine monohydrochloride monohydrate, GlenCell™, suitable for cell culture
Glentham Code	GM2021
CAS Number	5934-29-2
EINECS	211-438-9
MDL Number	MFCD00151027
Additional CAS	645-35-2 (anhydrous)
Additional CAS	1007-42-7
Batch Number	274NFT

Molecular Weight	209.63
Molecular Formula	$C_6H_9N_3O_2 \cdot HCl \cdot H_2O$
Storage Temp.	+20°C



Property	Specification	Batch 274NFT
Physical Description	White crystals or crystalline powder	White crystalline powder
Identification	IR	Conforms
Solubility	Freely soluble in water and in formic acid, 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	+9.2 - +10.6 ° (C=11, 6M HCl)	+9.8°
Chloride (Cl)	16.6 - 17.1 %	16.9%
Ammonium (NH ₄)	≤ 0.02%	Conforms
Sulphate (SO ₄)	≤ 0.02%	Conforms
Iron (Fe)	≤ 10ppm	Conforms
Heavy Metals (as Pb)	≤ 10ppm	Conforms
Arsenic (As ₂ O ₃)	≤ 1ppm	Conforms
Related Substances	To pass test	Conforms
Water (KF)	7.2 - 10.0 %	8.6%
Sulphated Ash	≤ 0.1%	0.03%
pH	3.5 - 4.5 (10% in water)	3.8
Endotoxins	≤ 6.0EU/g	Conforms
Assay	99.0 - 101.0 %	99.4%
Origin	Non-animal origin	Conforms

Specification Version	v1.0
Manufacture Date	2021-08-29
Re-Test Date	2028-07-28

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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