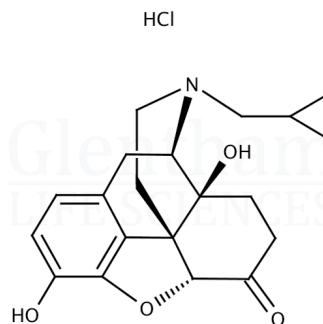


## Certificate of Analysis

Product Name Naltrexone hydrochloride, Ph. Eur. grade  
Glentham Code GP1217  
CAS Number 16676-29-2  
EINECS 240-723-0  
MDL Number MFCD00069324  
PubChem SID 310277441  
Batch Number 742HUC

Molecular Weight 377.86  
Molecular Formula  $C_{19}H_{21}NO_4 \cdot HCl \cdot xH_2O$   
Storage Temp. +4°C



Property	Specification	Batch 742HUC
Physical Description	White or almost white powder	Almost white powder
Identification	According to EP	Conforms
Solubility	2% in water: Clear, colourless solution	Conforms
Acidity and Alkalinity	According to EP	Conforms
Specific Optical Rotation	-187 - -195 °	-190.7°
Related Substances	According to EP	Any Individual Impurity: 0.05% (max); Total Impurities: 0.09%
Ethanol	≤ 3.0%	Conforms
Water	≤ 10.0%	7.5%
Sulphated Ash	≤ 0.1%	0.03%
Assay	98.0 - 102.0 %	100.5%
Pharmacopoeia Specification(s)	EP	Conforms

Specification Version v1.0  
Manufacture Date 2018-02-22  
Re-Test Date 2027-03-20

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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