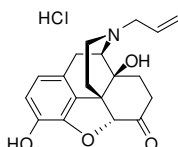




Certificate of Analysis

Axon Catalogue ID: 2415 **Batch Number:** 1
Product Name: Naloxone hydrochloride
Alternative Name(s): NIH 7890; Narcan
IUPAC Name: (5 α)-4,5-Epoxy-3,14-dihydroxy-17-(2-propen-1-yl)-morphinan-6-one hydrochloride

Structure:



Amount:

CAS number: 357-08-4
Batch Molecular Formula: C₁₉H₂₁NO₄.HCl.1.5H₂O **Batch MW:** 390.86
Appearance: White solid **Observed mp:** 138 °C
TLC (R_f): 0.73 DCM/MeOH/NH₃ (20:1:0.1)
Chemical Purity: 99.5%
Optical Purity (ee): N.A.
¹H-NMR (300 MHz): Analytical data confirm chemical structure
Mass Spec: Analytical data confirm chemical structure
Microanalysis: Calculated: C 58.39 , H 6.45 , N 3.58 Found: C 58.30 , H 6.36 , N 3.33
Storage Conditions: Store at +4 °C

Solubility Data:	Solvent	Solubility (mg/ml)	Solubility (mM)	Remarks
	Water	15.0	38.4	
	0.1N NaOH (aq)			Not Tested
	0.1N HCl (aq)			Not Tested
	DMSO	20.0	51.2	
	EtOH			Not Tested

Remarks:

QC Date: 02-07-2015

The purity of Axon Ligands is confirmed by HPLC, MS, NMR and/or microanalysis. Analytical data are available upon request. Request can be submitted by e-mail to info@axonmedchem.com indicating Catalogue ID and Batch number.

Caution: Not fully tested. For research purposes only