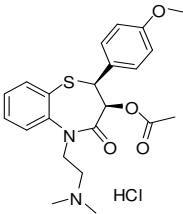




Certificate of Analysis

Axon Catalogue ID:	3323	Batch Number:	1
Product Name:	Diltiazem hydrochloride		
Alternative Name(s):	CRD-401; (+)-cis-Diltiazem hydrochloride		
IUPAC Name:	(2S,3S)-5-(2-(Dimethylamino)ethyl)-2-(4-methoxyphenyl)-4-oxo-2,3,4,5-tetrahydrobenzo[b][1,4]thiazepin-3-yl acetate hydrochloride		
Structure:			Amount:
CAS number(s):	42399-41-7 (parent), 33286-22-5 (HCl (1:1))		
Molecular Formula:	C ₂₂ H ₂₆ N ₂ O ₄ .HCl	Molecular Weight:	450.98
Batch Molecular Formula:	C ₂₂ H ₂₆ N ₂ O ₄ .HCl	Batch Molecular Weight:	450.98
Appearance:	White solid	Observed mp:	213 - 216 °C
TLC (R_f):	0.5	DCM/MeOH (9:1)	
Chemical Purity:	99.5%		
Optical Purity (ee):	Optically pure		
¹H-NMR (300 MHz):	Analytical data confirm chemical structure		
Mass Spec:	Analytical data confirm chemical structure		
Microanalysis:	Calculated: C 58.59, H 6.03, N 6.21; Found: C 58.32, H 6.10, N 6.16		
Storage Conditions:	Store at +4 °C		
Solubility Data:	Solvent	Solubility (mg/ml)	Solubility (mM)
	Water	45.1	>100 mM
	0.1N NaOH (aq)		Not Tested
	0.1N HCl (aq)		Not Tested
	DMSO	42.0	93.1
	EtOH		Not Tested
Remarks:			
QC Date:	19-04-2021		

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