

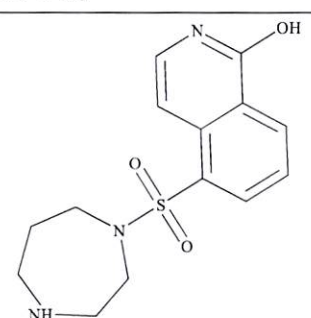
Certificate of Analysis

Certificate No.: 20221014013

Date: October 14, 2022

Retest date: October 13, 2025

Compound Name: Fasudil Impurity 5	
Synonyms:	5-((1,4-diazepan-1-yl)sulfonyl)isoquinolin-1-ol
TLC Catalogue Number:	F-619
CAS Number:	105628-72-6
Molecular Weight:	307.37
Molecular Formula:	C ₁₄ H ₁₇ N ₃ O ₃ S
Source:	TLC Pharmaceutical Standards
Source Lot No.:	2537-078A10
Storage Conditions:	Store at 2-8 °C
Solubility:	Solution of Methanol and Acetonitrile, DMSO



Test Description	Specifications	Results
Visual Description	White to off-white solid	Conforms
Identification		
IR	Conforms to structure	Conforms
MS	Conforms to structure	Conforms
¹ H NMR	Conforms to structure	Conforms
Elemental Analysis	Conforms to structure	Conforms
Purity (HPLC)	Not less than 95.0%	100.0%
Impurity (HPLC)	N/A	
Water Content (KF)	N/A	0.3%
Residual Solvents (NMR)	0.2% methanol	
Assay (%)	Not less than 90.0%	99.5%
Recommendation:	Release.	

Name	Department	Signature	Date
Reviewed and approved by:	Quality Control	<i>Kelvin Zhu</i>	10/17/2022
Approved by:	Quality Assurance	<i>Karl</i>	10/17/2022

Attachments: HPLC, IR, MS and NMR spectra.