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DATASHEET

Fasudil hydrochloride

Product overview

Name	Fasudil hydrochloride
Cat No	HB0283
Alternative names	HA 1077; 1-(5-Isoquinolinesulfonyl)homopiperazine, Monohydrochloride salt
Biological action	Inhibitor
Purity	>98%
Description	ROCK and cyclic nucleotide-dependent protein kinase inhibitor

Images

Biological Data

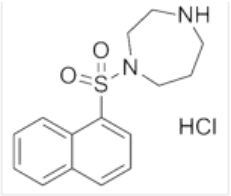
Biological description	Rho-associated kinase inhibitor (IC_{50} = 10.7 μM) and cyclic nucleotide-dependent protein kinase inhibitor. Inhibits NOS in microglia and pro-inflammatory factors in brain tissue. Also reduces nitric oxide, IL-1β, IL-6 and TNF. Shows antioxidant effects which can reverse hypertension and neuroprotective actions.

Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in water (100mM) and in DMSO (75mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	5-(1,4-diazepan-1-ylsulfonyl)isoquinoline;hydrochloride
Molecular Weight	327.83
Chemical structure	



Molecular Formula	$C_{14}H_{17}N_3O_2S.HCl$
CAS Number	105628-07-7
PubChem identifier	163751
SMILES	C1CNCCN(C1)S(=O)(=O)C2=CC=CC3=C2C=CN=C3.Cl
InChi	InChI=1S/C14H17N3O2S.ClH/c18-20(19,17-9-2-6-15-8-10-17)14-4-1-3-12-11-16-7-5-13(12)14;/h1,3-5,7,11,15H,2,6,8-10H2;1H
InChiKey	LFVPBERIVUNMGV-UHFFFAOYSA-N
MDL number	MFCD00943198

References

Fasudil protects hippocampal neurons against hypoxia-reoxygenation injury by suppressing microglial inflammatory responses in mice.

Ding J *et al* (2010) J Neurochem 114(6)
PubMedID 20882700

Fasudil reversed MCT-induced and chronic hypoxia-induced pulmonary hypertension by attenuating oxidative stress and inhibiting the expression of Trx1 and HIF-1α.

Liu M *et al* (2014) Respir Physiol Neurobiol 201
PubMedID 24973470