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DATASHEET

ML-7 hydrochloride

Product overview

Name	ML-7 hydrochloride
Cat No	HB0415
Biological action	Inhibitor
Purity	>99%
Description	Selective MLCK inhibitor

Images



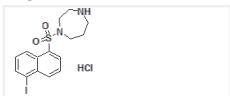
Biological Data

Biological description	Selective myosin light chain kinase (MLCK) inhibitor ($K_i = 0.3 \mu\text{M}$). Shows reversible ATP- competitive inhibition of Ca^{2+} calmodulin independent/ dependant smooth muscle MLCK. Approx 10-fold more potent inhibitor than ML-9 Shows antiglaucomatous actions.
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Solubility & Handling

Storage instructions	room temperature (desiccate)
Solubility overview	Soluble in DMSO (25mM)
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	Hexahydro-1-[(5-iodo-1-naphthalenyl)sulfonyl]-1H-1,4-diazepine hydrochloride
Molecular Weight	452.74
Chemical structure	 The chemical structure shows a 1,4-diazepine ring system with a sulfonyl group attached to the 1-position. The sulfonyl group is further attached to a 5-iodo-1-naphthalenyl group. The structure is shown as a hydrochloride salt (HCl).
Molecular Formula	$\text{C}_{15}\text{H}_{17}\text{IN}_2\text{O}_2\text{S} \cdot \text{HCl}$
CAS Number	110448-33-4
PubChem identifier	9803932
SMILES	<chem>C1CNCCN(C1)S(=O)(=O)C2=CC=CC3=C2C=CC=C3I.Cl</chem>
InChIKey	KDDALCDYHZIMH-UHFFFAOYSA-N

References

Selective inhibition of catalytic activity of smooth muscle myosin light chain kinase.

Saitoh M *et al* (1987) J Biol Chem 262(16)

PubMedID [3108259](#)

The specificities of protein kinase inhibitors: an update.

Bain J *et al* (2003) Biochem J 371(Pt 1)

PubMedID [12534346](#)

Effects of ML-7 and Y-27632 on carbachol- and endothelin-1-induced contraction of bovine trabecular meshwork.

Rosenthal R *et al* (2005) Exp Eye Res 80(6)

PubMedID [15939040](#)
