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DATASHEET

Philanthotoxin-7,4

Product overview

Name	Philanthotoxin-7,4
Cat No	HB0499
Alternative names	PhTx-74
Biological action	Antagonist
Purity	>98%
Description	AMPA receptor antagonist

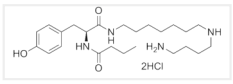
Biological Data

Biological description	AMPA receptor antagonist. Non-selective inhibitor of homomeric GluA1 and GluA3 subunit-containing receptors and heteromeric receptor GluA1/2 subunits (IC_{50} = 22 µM).

Solubility & Handling

Storage instructions	Room temperature (desiccate)
Solubility overview	Soluble in water (100mM) or DMSO (100mM)
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	(*S*)-*N*-[7-[(4-Aminobutyl)amino]heptyl]-4-hydroxy-α-[(1-oxobutyl)amino]benzenepropanamide dihydrochloride
Molecular Weight	507.54
Chemical structure	
Molecular Formula	$C_{24}H_{42}N_4O_3.2HCl$
CAS Number	1227301-51-0
PubChem identifier	46213501
SMILES	Cl.Cl.Oc1ccc(C[C@H](NC(=O)CCC)C(=O)NCCCCCCCNCCCCN)cc1
InChiKey	HWTJQQMIKVJWLH-IKXQUJFKSA-N

References

A subtype-selective, use-dependent inhibitor of native AMPA receptors.

Nilsen A *et al* (2007) J Am Chem Soc 129(16)
PubMedID 17391037

Evaluation of PhTX-74 as subtype-selective inhibitor of GluA2-containing AMPA receptors.

Poulsen MH *et al* (2014) Mol Pharmacol 85(2)
PubMedID 24220009

Solid-phase synthesis of polyamine toxin analogues: potent and selective antagonists of Ca2+-permeable AMPA receptors.

Kromann H *et al* (2002) J Med Chem 45(26)

PubMedID 12477358