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DATASHEET

UBP 310

Product overview

Name	UBP 310
Cat No	HB0628
Biological action	Antagonist
Purity	>98%
Description	Potent, selective GluK1 / GluK3 subunit selective kainate receptor antagonist

Images

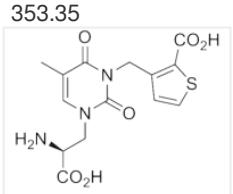
Biological Data

Biological description	Potent and selective GluK1 (formerly GluR5) and GluK3 (formerly GluR7) subunit selective kainate receptor antagonist (K_b = 10 nM and IC_{50} = 23 nM respectively). IC_{50} values are > 100 µM for GluA2, GluK6, GluK2/3 and GluK6/GluK2 respectively. Active at AMPA receptors and inactive against NMDA and Group I mGlu receptors at concentrations of up to 10 µM.

Solubility & Handling

Storage instructions	+4°C
Solubility overview	Soluble in DMSO
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*)-1-(2-Amino-2-carboxyethyl)-3-(2 -carboxy-thiophene-3-yl-methyl)-5-methylpyrimidine-2,4-dione
Molecular Weight	353.35
Chemical structure	
Molecular Formula	$C_{14}H_{15}N_3O_6S$

Chemical name	(*S*)-1-(2-Amino-2-carboxyethyl)-3-(2 -carboxy-thiophene-3-yl-methyl)-5-methylpyrimidine-2,4-dione
CAS Number	902464-46-4
PubChem identifier	6420160
SMILES	CC1=CN(C(=O)N(C1=O)CC2=C(SC=C2)C(=O)O)C[C@@H](C(=O)O)N
InChi	InChI=1S/C14H15N3O6S/c1-7-4-16(6-9(15)12(19)20)14(23)17(11(7)18)5-8-2-3-24-10(8)13(21)22/h2-4,9H,5-6,15H2,1H3,(H,19,20)(H,21,22)/t9-/m0/s1
InChiKey	ZTAZUCRXCRXNSU-VIFPVBQESA-N
Appearance	White solid

References

Crystal structures of the kainate receptor GluR5 ligand binding core dimer with novel GluR5-selective antagonists.

Mayer ML *et al* (2006) J Neurosci 26(11)
PubMedID 16540562

Synthesis and pharmacological characterization of N3-substituted willardiine derivatives: role of the substituent at the 5-position of the uracil ring in the development of highly potent and selective GLUK5 kainate receptor antagonists.

Dolman NP *et al* (2007) J Med Chem 50(7)
PubMedID 17348638

Antagonism of recombinant and native GluK3-containing kainate receptors.

Perrais D *et al* (2009) Neuropharmacology 56(1)
PubMedID 18761361