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DATASHEET

(S)-3,4-DCPG

Product overview

Name	(S)-3,4-DCPG
Cat No	HB0044
Alternative names	(S)-3,4-Dicarboxyphenylglycine; UBP1109
Biological action	Agonist
Purity	>95%
Description	Potent, selective $mGlu_{8a}$ agonist

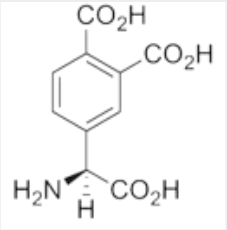
Biological Data

Biological description	Potent and selective $mGlu_{8a}$ receptor agonist (EC_{50} = 31 nM). Selective for $mGlu_{8a}$ receptor over $mGlu_{1-7}$ receptors (EC_{50} / IC_{50} values are >3.5 µM). Shows neuroprotective, anti-cataleptic and anticonvulsant actions.

Solubility & Handling

Storage instructions	Room temperature (desiccate)
Solubility overview	Soluble in water (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*)-3,4-Dicarboxyphenylglycine
Molecular Weight	239.18
Chemical structure	
Molecular Formula	$C_{10}H_9NO_6$
CAS Number	201730-11-2
PubChem identifier	16062593
SMILES	OC(=O)c1cc(ccc1C(=O)O)[C@H](N)C(=O)O
InChi	InChI=1S/C10H9NO6/c11-7(10(16)17)4-1-2-5(8(12)13)6(3-4)9(14)15/h1-3,7H,11H2,(H,12,13)(H,14,15)(H,16,17)/t7-/m0/s1
InChiKey	IJVMOGKBEVRBPP-ZETCQYMHSA-N

References

(S)-3,4-DCPG, a potent and selective mGlu8a receptor agonist, activates metabotropic glutamate receptors on primary afferent terminals in the neonatal rat spinal cord.

Thomas NK *et al* (2001) Neuropharmacology 40(3)
PubMedID 11166323

Neuroprotective effects of metabotropic glutamate receptor group II and III activators against MPP(+)-induced cell death in human neuroblastoma SH-SY5Y cells: the impact of cell differentiation state.

Jantas D *et al* (2014) Neuropharmacology 83
PubMedID 24713472

The metabotropic glutamate receptor 8 agonist (S)-3,4-DCPG reverses motor deficits in prolonged but not acute models of Parkinson's disease.

Johnson KA *et al* (2013) Neuropharmacology 66
PubMedID 22546615

Anticonvulsant and neuroprotective effect of (S)-3,4-dicarboxyphenylglycine against seizures induced in immature rats by homocysteic acid.

Folbergrová J *et al* (2008) Neuropharmacology 54(4)
PubMedID 18191956