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DATASHEET

DL-TBOA

Product overview

Name	DL-TBOA
Cat No	HB0258
Biological action	Blocker
Purity	>98%
Description	Competitive EAAT blocker. Inhibits glutamate uptake.

Images



Biological Data

Biological description	Competitive, non-transportable EAAT blocker (IC_{50} values are 70, 6 and 6 μM for EAAT1, EAAT2 and EAAT3 respectively and K_i values are 4.4 and 3.2 μM for EAAT4 and EAAT5. Selective for EAA transporters over ionotropic and metabotropic glutamate receptors. Inhibits glutamate uptake.
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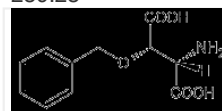
Solubility & Handling

Storage instructions	-20°C (desiccate)
Solubility overview	Soluble in DMSO (100mM, gentle warming) or water (5mM, gentle warming)
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	DL- <i>threo</i> - β -Benzyloxyaspartic acid
Molecular Weight	239.23

Chemical structure



Molecular Formula	$C_{11}H_{13}NO_5$
CAS Number	205309-81-5
PubChem identifier	5311218
SMILES	<chem>C1=CC=C(C=C1)CO[C@@H]([C@@H](C(=O)O)N)C(=O)O</chem>

Source	Synthetic
InChi	1S/C11H13NO5/c12-8(10(13)14)9(11(15)16)17-6-7-4-2-1-3-5-7/h1-5,8-9H,6,12H2,(H,13,14)(H,15,16)/t8-,9-/m0/s1
InChiKey	BYOBCYXURWDEDS-IUCAKERBSA-N
Appearance	Off-white solid

References

Syntheses of optically pure beta-hydroxyaspartate derivatives as glutamate transporter blockers.

Shimamoto K *et al* (2000) *Bioorg Med Chem Lett* 10(21)

PubMedID [11078189](#)

DL-threo-beta-benzyloxyaspartate, a potent blocker of excitatory amino acid transporters.

Shimamoto K *et al* (1998) *Mol Pharmacol* 53(2)

PubMedID [9463476](#)

Neurotoxic and neuroprotective effects of the glutamate transporter inhibitor DL-threo-beta-benzyloxyaspartate (DL-TBOA) during physiological and ischemia-like conditions.

Bonde C *et al* (2003) *Neurochem Int* 43(4-5)

PubMedID [12742081](#)
