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## DATASHEET

DL-TBOA

### Product overview

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

### Images



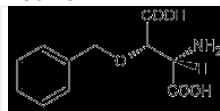
### Biological Data

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

<b>Storage instructions</b>	-20°C (desiccate)
<b>Solubility overview</b>	Soluble in DMSO (100mM, gentle warming) or water (5mM, gentle warming)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

### Chemical Data

<b>Chemical name</b>	DL- <i>threo</i> - $\beta$ -Benzyloxyaspartic acid
<b>Molecular Weight</b>	239.23
<b>Chemical structure</b>	

<b>Molecular Formula</b>	$C_{11}H_{13}NO_5$
<b>CAS Number</b>	205309-81-5
<b>PubChem identifier</b>	5311218
<b>SMILES</b>	<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

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## 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](#)

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