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DATASHEET

D-Serine

Product overview

Name	D-Serine
Cat No	HB0267
Biological action	Agonist
Purity	>98%
Description	NMDA receptor co-agonist

Images



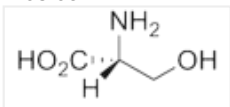
Biological Data

Biological description	Endogenous NMDA receptor co-agonist. Binds at the glycine site with higher potency than glycine. Induces Ca^{2+} -dependent inactivation of GluN2A subunit-containing NMDA receptors with potential neuroprotective effects.
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Solubility & Handling

Storage instructions	Room temperature
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	(R)-2-amino-3-hydroxypropanoic acid
Molecular Weight	105.09
Chemical structure	
Molecular Formula	$\text{C}_3\text{H}_7\text{NO}_3$
CAS Number	312-84-5
PubChem identifier	71077
SMILES	<chem>C([C@H](C(=O)O)N)O</chem>
InChi	InChI=1S/C3H7NO3/c4-2(1-5)3(6)7/h2,5H,1,4H2,(H,6,7)/t2-m/s1

Chemical name	(R)-2-amino-3-hydroxypropanoic acid
InChiKey	MTCFGRXMJLQNBG-UWTATZPHSA-N
MDL number	MFCD00004269

References

D-amino acids in the brain: D-serine in neurotransmission and neurodegeneration.

Wolosker H *et al* (2008) FEBS J 275(14)

PubMedID [18564180](#)

D-Serine-induced Inactivation of NMDA Receptors in Cultured Rat Hippocampal Neurons Expressing NR2A Subunits is Ca(2+) -Dependent.

Li X *et al* (2014) CNS Neurosci Ther 20(11)

PubMedID [25042179](#)

Long-term potentiation depends on release of D-serine from astrocytes.

Henneberger C *et al* (2010) Nature 463(7278)

PubMedID [20075918](#)
