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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



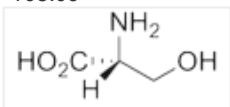
Biological Data

| | |
|-------------------------------|---|
| 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. |
|-------------------------------|---|

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
InChiKey
MDL number

InChI=1S/C3H7NO3/c4-2(1-5)3(6)7/h2,5H,1,4H2,(H,6,7)/t2-/m1/s1
MTCFGRXMJLQNBG-UWTATZPHSA-N
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](#)
