

Product Name: L-(-)-*threo*-3-Hydroxyaspartic acid

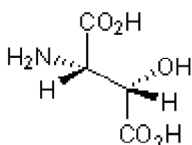
Catalog No.: 0183

Batch No.: 14

CAS Number: 7298-99-9

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₄H₇NO₅
Batch Molecular Weight: 149.1
Physical Appearance: White solid
Solubility: 1eq. NaOH to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.39 (PAW:BuOH 3:2)
HPLC: Shows 98.8% purity
Chiral HPLC: Shows 99.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = -10.1 (Concentration = 0.32, Solvent = Water)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	32.22	4.73	9.39
Found	32.29	4.69	9.2

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

Product Name: L-(-)-threo-3-Hydroxyaspartic acid

Catalog No.: 0183

14

CAS Number: 7298-99-9

Description:

L-(-)-threo-3-Hydroxyaspartic acid is a potent, competitive, transportable EAAT1-4 inhibitor/non-transportable EAAT5 inhibitor. In [³H]-d-Asp uptake assays in HEK293 cells expressing human EAAT1, EAAT2 and EAAT3, K_i values are 11, 19, and 14 μM, respectively. In a FLIPR Membrane Potential (FMP) assay, K_m values are 3.6, 3.8 and 3.2 μM for human EAAT1, EAAT2 and EAAT3, respectively.

Physical and Chemical Properties:

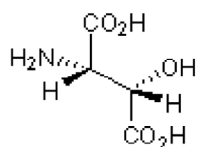
Batch Molecular Formula: C₄H₇NO₅

Batch Molecular Weight: 149.1

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Jensen and Bräuner-Osborne (2004) Pharmacological characterization of human excitatory amino acid transporters EAAT1, EAAT2 and EAAT3 in a fluorescence-based membrane potential assay. *Biochem.Pharmacol.* **67** 2115. PMID: 15135308.

Nakamura et al (1993) (2S,3S,4R)-2-(carboxycyclopropyl)glycine, a potent and competitive inhibitor of both glial and neuronal uptake of glutamate. *Neuropharmacology* **32** 833. PMID: 7901789.

McBean and Roberts (1985) Neurotoxicity of L-glutamate and DL-threo-3-hydroxyaspartate in the rat striatum. *J.Neurochem.* **44** 247. PMID: 2856883.

Storage: Store at RT

Solubility & Usage Info:

1eq. NaOH to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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