

**Product Name:** (±)-*threo*-3-Methylglutamic acid

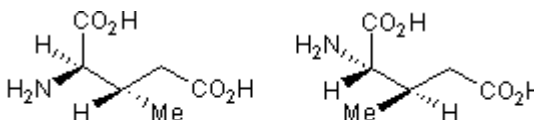
**Catalog No.:** 0811

**Batch No.:** 6

CAS Number: 63088-04-0

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>6</sub>H<sub>11</sub>NO<sub>4</sub>  
**Batch Molecular Weight:** 161.16  
**Physical Appearance:** White crystalline powder  
**Solubility:** 1eq. NaOH to 100 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



(1:1 mixture of enantiomers)

**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.24 (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])  
**Melting Point:** Between 167 - 169°C  
**HPLC:** Shows >99.5% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	44.72	6.88	8.69
Found	44.66	6.89	8.61

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

**Product Name:** (±)-*threo*-3-Methylglutamic acid

**Catalog No.:** 0811

**Batch No.:** 6

**CAS Number:** 63088-04-0

**Description:**

A potent blocker of glutamate transport; selective for EAAT2 and EAAT4 (IC<sub>50</sub> values are 90, 109, 1600 and 1080 μM for EAAT2, EAAT4, EAAT1 and EAAT3 respectively).

**Physical and Chemical Properties:**

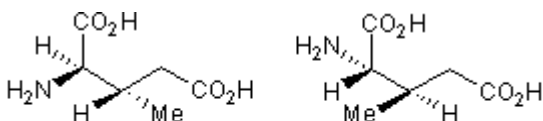
Batch Molecular Formula: C<sub>6</sub>H<sub>11</sub>NO<sub>4</sub>

Batch Molecular Weight: 161.16

Physical Appearance: White crystalline powder

**Minimum Purity:** >98%

**Batch Molecular Structure:**



(1:1 mixture of enantiomers)

**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. Our standard recommendations are:

**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.

**References:**

**Vandenberg et al** (1997) Contrasting modes of action of methylglutamate derivatives on the excitatory amino acid transporters, EAAT1 and EAAT2. *Mol.Pharmacol.* **51** 809. PMID: 9145919.

**Mitrovic et al** (1998) Identification of functional domains of the human glutamate transporters EAAT1 and EAAT2. *J.Biol.Chem.* **273** 14698. PMID: 9614067.

**Eliasof et al** (2001) Pharmacological characterization of *threo*-3-methylglutamic acid with excitatory amino acid transporters in native and recombinant systems. *J.Neurochem.* **77** 550. PMID: 11299317.

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