

**Product Name:** Marimastat

**Catalog No.:** 2631

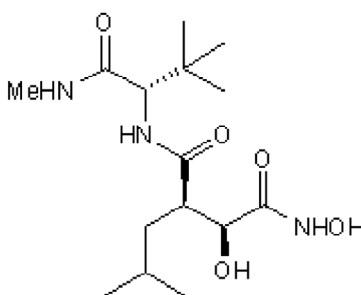
**Batch No.:** 6

CAS Number: 154039-60-8

IUPAC Name: (2S,3R)-N4-[(1S)-2,2-Dimethyl-1-[(methylamino)carbonyl]propyl]-N1,2-dihydroxy-3-(2-methylpropyl)butanediamide

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>15</sub>H<sub>29</sub>N<sub>3</sub>O<sub>5</sub>  
**Batch Molecular Weight:** 331.41  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.53 (Chloroform:Methanol:Water. [150:45:5])  
**HPLC:** Shows 99.8% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [α]<sub>D</sub> = -32.4 (Concentration = 0.5, Solvent = Methanol)

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	54.36	8.82	12.67
Found	54.15	8.86	12.61

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

**Product Name:** Marimastat

**Catalog No.:** 2631

**6**

CAS Number: 154039-60-8

IUPAC Name: (2S,3R)-N4-[(1S)-2,2-Dimethyl-1-[(methylamino)carbonyl]propyl]-N1,2-dihydroxy-3-(2-methylpropyl)butanediamide

**Description:**

Marimastat is a broad spectrum inhibitor of MMPs (IC<sub>50</sub> values are 3, 5, 6, 9 and 13 nM for MMP-9, MMP-1, MMP-2, MMP-14 and MMP-7 respectively). Inhibits peritoneal dissemination of human gastric cancer cells in vivo through inhibition of tumor angiogenesis.

**Physical and Chemical Properties:**

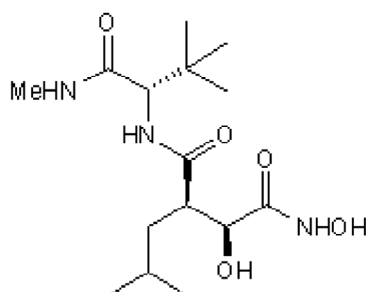
Batch Molecular Formula: C<sub>15</sub>H<sub>29</sub>N<sub>3</sub>O<sub>5</sub>

Batch Molecular Weight: 331.41

Physical Appearance: White solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 100 mM

When purchased as a 1mg unit, this product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**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.

**References:**

**Bjornland et al** (2005) Matrix metalloproteinases participate in osteosarcoma invasion. *J.Surg.Res.* **127** 151. PMID: 16083752.

**Wada et al** (2003) Reduced angiogenesis in peritoneal dissemination of gastric cancer through gelatinase inhibition. *Clin.Exp.Metastasis* **20** 431. PMID: 14524532.

**Rasmussen and McCann** (1997) Matrix metalloproteinase inhibition as a novel anticancer strategy: a review with special focus on batimastat and marimastat. *Pharmacol.Ther.* **75** 69. PMID: 9364582.

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

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel:+1 612 379 2956