

Product Name: Marimastat

Catalog No.: 2631

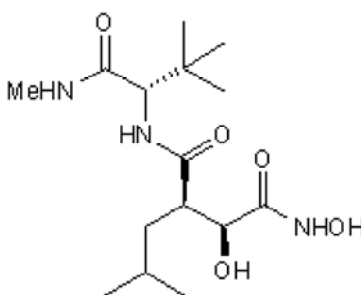
Batch No.: 6

CAS Number: 154039-60-8

IUPAC Name: (2*S*,3*R*)-*N*4-[(1*S*)-2,2-Dimethyl-1-[(methylamino)carbonyl]propyl]-*N*1,2-dihydroxy-3-(2-methylpropyl)butanediamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₂₉N₃O₅
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_f = 0.53 (Chloroform:Methanol:Water. [150:45:5])
HPLC: Shows 99.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = -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

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Description:

Broad spectrum inhibitor of MMPs (IC₅₀ 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:

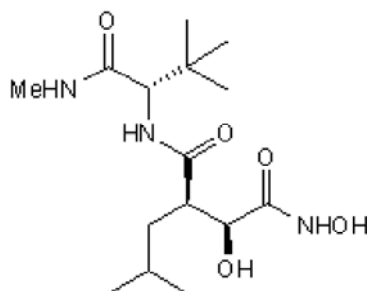
Batch Molecular Formula: C₁₅H₂₉N₃O₅

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 as a lyophilized solid and may 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. 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:

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.

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