

Product Name: GI 254023X

Catalog No.: 3995

Batch No.: 3

CAS Number: 260264-93-5

IUPAC Name: (2*R*)-*N*-[(1*S*)-2,2-Dimethyl-1-[(methylamino)carbonyl]propyl]-2-[(1*S*)-1-(*N*-hydroxyformamido)ethyl]-5-phenylpentanamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₁H₃₃N₃O₄·½H₂O

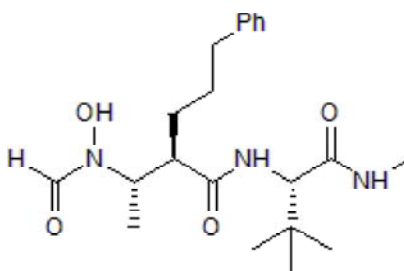
Batch Molecular Weight: 400.51

Physical Appearance: White solid

Solubility: DMSO to 20 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.52 (Dichloromethane:Methanol [95:5])

HPLC: Shows 99.5% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	62.98	8.56	10.49
Found	63.19	8.54	10.6

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

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Description:

Selective ADAM10 metalloprotease inhibitor; displays over 100-fold higher potency at ADAM10 compared to ADAM17. Blocks constitutive release of IL-6R, CX3CL1 and CXCL16 in cell-based cleavage experiments. Inhibits calcium ionophore-induced betacellulin shedding in IMPE cells. Prevents E-cadherin cleavage in A549 cells. Inhibits ADAM10 mediated neuronal outgrowth of dorsal root ganglion neurons in vitro.

Physical and Chemical Properties:

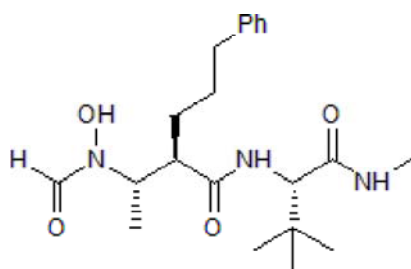
Batch Molecular Formula: C₂₁H₃₃N₃O₄·½H₂O

Batch Molecular Weight: 400.51

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 20 mM

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.

Licensing Information:

Sold for research purposes under agreement from GlaxoSmithKline.

References:

Inoshima et al (2011) A Staphylococcus aureus pore-forming toxin subverts the activity of ADAM10 to cause lethal infection in mice. *Nat.Med.* **17** 1310. PMID: 21926978.

Moss et al (2007) The ADAM10 prodomain is a specific inhibitor of ADAM10 proteolytic activity and inhibits cellular shedding events. *J.Biol.Chem.* **282** 35712. PMID: 17895248.

Ludwig et al (2005) Metalloprotease inhibitors for the disintegrin-like metalloproteinases ADAM10 and ADAM17 that differentially block constitutive and phorbol ester-inducible shedding of cell surface molecules. *Comb.Chem.High Throughput Screen.* **8** 161. PMID: 15777180.

Hundhausen et al (2003) The disintegrin-like metalloproteinase ADAM10 is involved in constitutive cleavage of CX3CL1 (fractalkine) and regulates CX3CL1-mediated cell-cell adhesion. *Blood* **102** 1186. PMID: 12714508.

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