

Certificate of Analysis

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Product Name: Parstatin (mouse)

Catalog No.: 3554

Batch No.: 1

CAS Number: 1065756-01-5

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈₉H₃₂₆N₅₈O₅₇S₃
Batch Molecular Weight: 4419.19
Physical Appearance: White lyophilised solid
Net Peptide Content: 83.5%
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: Met-Gly-Pro-Arg-Arg-Leu-Leu-Ile-Val-Ala-Leu-Gly-Leu-Ser-Leu-Cys-Gly-Pro-Leu-Leu-Ser-Ser-Arg-Val-Pro-Met-Ser-Gln-Pro-Glu-Ser-Glu-Arg-Thr-Asp-Ala-Thr-Val-Asn-Pro-Arg

2. ANALYTICAL DATA

HPLC: Shows 95.4% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	2.00	2.20	Lys		
Arg	5.00	4.90	Met	2.00	2.00
Asx	2.00	2.10	Phe		
Cys	1.00	1.00	Pro	5.00	5.00
Glx	3.00	3.10	Ser	5.00	5.40
Gly	3.00	3.10	Thr	2.00	2.00
His			Trp		
Ile	1.00	0.60	Tyr		
Leu	7.00	7.00	Val	3.00	2.60

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

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Description:

Cell-permeable peptide cleaved from protease-activated receptor 1 (PAR₁) upon receptor activation. Attenuates endothelial cell migration and proliferation (IC₅₀ ~ 20 μM), and induces cell cycle arrest. Promotes activation of caspase-3 and exhibits pro-apoptotic activity in vitro. Inhibits angiogenesis and exhibits cardioprotective activity in vivo. Parstatin (human) also available.

Physical and Chemical Properties:

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Batch Molecular Weight: 4419.19

Physical Appearance: White lyophilised solid

Peptide Sequence:

Met-Gly-Pro-Arg-Arg-Leu-Leu-Ile-Val-Ala-
Leu-Gly-Leu-Ser-Leu-Cys-Gly-Pro-Leu-Leu-
Ser-Ser-Arg-Val-Pro-Met-Ser-Gln-Pro-Glu-
Ser-Glu-Arg-Thr-Asp-Ala-Thr-Val-Asn-Pro-
Arg

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in water

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.

Net Peptide Content: 83.5% (Remaining weight made up of counterions and residual water).

Counter Ion: TFA

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).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such as Cys, Met, Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at -20°C. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a 0.2 μm filter to remove potential bacterial contamination whenever possible.

References:

Strande et al (2009) Parstatin: a cryptic peptide involved in cardioprotection after ischaemic and reperfusion injury. *Cardiovasc.Res.* **83** 325. PMID: 19380418.

Zania et al (2009) Parstatin, the cleaved peptide on proteinase-activated receptor 1 activation, is a potent inhibitor of activation. *J.Pharmacol.Exp.Ther.* **328** 378. PMID: 18988770.

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