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Print Date: Dec 13th 2017

Certificate of Analysis

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Product Name: **Parstatin (human)** **Catalog No.: 3553** **Batch No.: 1**

CAS Number: 1065755-99-8

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{191}H_{330}N_{64}O_{53}S_3$

Batch Molecular Weight: 4467.29

Physical Appearance: White lyophilised solid

Net Peptide Content: 84.7%

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-Leu-Val-Ala-Ala-Cys-Phe-Ser-Leu-Cys-Gly-Pro-Leu-Leu-Ser-Ala-Arg-Thr-Arg-Ala-Arg-Arg-Pro-Glu-Ser-Lys-Ala-Thr-Asn-Ala-Thr-Leu-Asp-Pro-Arg

2. ANALYTICAL DATA

HPLC: Shows 100% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala	6.00	6.00	Lys	1.00	1.00
Arg	7.00	6.80	Met	1.00	1.00
Asx	2.00	2.00	Phe	1.00	1.00
Cys	2.00	2.00	Pro	4.00	3.80
Glx	1.00	1.00	Ser	3.00	3.20
Gly	2.00	2.00	Thr	3.00	3.10
His			Trp		
Ile			Tyr		
Leu	7.00	7.00	Val	1.00	1.00

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

Product Name: **Parstatin (human)** **Catalog No.: 3553** **Batch No.: 1**

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Description:

Cell-permeable peptide cleaved from protease-activated receptor 1 (PAR_1) upon receptor activation. Attenuates endothelial cell migration and proliferation (IC_{50} ~ 3 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 (mouse) also available.

Physical and Chemical Properties:

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Met-Gly-Pro-Arg-Arg-Leu-Leu-Leu-Val-Ala-Ala-Cys-Phe-Ser-Leu-Cys-Gly-Pro-Leu-Leu-Ser-Ala-Arg-Thr-Arg-Ala-Arg-Arg-Pro-Glu-Ser-Lys-Ala-Thr-Asn-Ala-Thr-Leu-Asp-Pro-Arg

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in water

Net Peptide Content: 84.7% (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 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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