

Certificate of Analysis

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Product Name: Thrombin Receptor Agonist Peptide

Catalog No.: 1185

Batch No.: 20

CAS Number: 137339-65-2

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₈₁ H ₁₁₈ N ₂₀ O ₂₃
Batch Molecular Weight:	1739
Physical Appearance:	White lyophilised solid
Counter Ion:	TFA
Solubility:	Soluble to 0.90 mg/ml in water
Storage:	Store at -20°C
Peptide Sequence:	Ser-Phe-Leu-Leu-Arg-Asn-Pro-Asn-Asp-Lys- Tyr-Glu-Pro-Phe

2. ANALYTICAL DATA

HPLC:	Shows 95.8% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid		Theoretical	Actual	Amino Acid		Theoretical	Actual
Ala				Lys	1.00	1.00	
Arg	1.00	0.99	Met				
Asx	3.00	2.97	Phe	2.00	1.99		
Cys			Pro	2.00	2.01		
Glx	1.00	1.01	Ser	1.00	0.67		
Gly			Thr				
His			Trp				
Ile			Tyr	1.00	1.06		
Leu	2.00	1.98	Val				

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

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Product Name: Thrombin Receptor Agonist Peptide

Catalog No.: 1185

20

CAS Number: 137339-65-2

Description:

Thrombin Receptor Agonist Peptide is an agonist at the thrombin receptor; causes platelet aggregation (EC₅₀ = 4 μM) and secretion.

Physical and Chemical Properties:

Batch Molecular Formula: C₈₁H₁₁₈N₂₀O₂₃

Batch Molecular Weight: 1739

Physical Appearance: White lyophilised solid

Peptide Sequence:

Ser-Phe-Leu-Leu-Arg-Asn-Pro-Asn-Asp-Lys-
Tyr-Glu-Pro-Phe

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 0.90 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.

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:

Vassallo et al (1992) Structure-function relationships in the activation of platelet thrombin receptors by receptor-derived peptides. *J.Biol.Chem.* **267** 6081. PMID: 1313429.

Huang et al (1991) 'Thrombin' receptor-directed ligand accounts for activation by thrombin of platelet phospholipase C and accumulation of 3-phosphorylated phosphoinositides. *J.Biol.Chem.* **266** 18435. PMID: 1655750.

Vu et al (1991) Molecular cloning of a functional thrombin receptor reveals a novel proteolytic mechanism of receptor activation. *Cell* **64** 1057. PMID: 1672265.

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