

Certificate of Analysis

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Product Name: MMK 1
CAS Number: 271246-66-3

Catalog No.: 3537 **Batch No.:** 7

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₇₅H₁₂₃N₁₉O₁₈S
Batch Molecular Weight: 1610.97
Physical Appearance: White lyophilised solid
Counter Ion: TFA
Solubility: Soluble to 0.50 mg/ml in 25% ethanol / water with sonication
Storage: Store at -20°C
Peptide Sequence: Leu-Glu-Ser-Ile-Phe-Arg-Ser-Leu-Leu-Phe-Arg-Val-Met

2. ANALYTICAL DATA

HPLC: Shows 98.0% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid		Theoretical	Actual	Amino Acid		Theoretical	Actual
Ala				Lys			
Arg	2.00	1.95	Met	1.00	1.05		
Asx			Phe	2.00	1.96		
Cys			Pro				
Glx	1.00	1.03	Ser	2.00	1.99		
Gly			Thr				
His			Trp				
Ile	1.00	0.92	Tyr				
Leu	3.00	3.06	Val	1.00	0.97		

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

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CAS Number: 271246-66-3

Description:

MMK 1 is a potent and selective human formyl peptide receptor FPR2 agonist (EC₅₀ values are 1, 2 and > 10 000 nM at mFRP2, hFPR2 and hFPR1 respectively). Induces migration of human monocytes and neutrophils via a chemotactic mechanism and enhances production of proinflammatory cytokines IL-1β and IL-6. Also activates the neutrophil superoxide-generating NADPH-oxidase. DMSO is not recommended as a solvent for this peptide.

Physical and Chemical Properties:

Batch Molecular Formula: C₇₅H₁₂₃N₁₉O₁₈S

Batch Molecular Weight: 1610.97

Physical Appearance: White lyophilised solid

Peptide Sequence:

Leu-Glu-Ser-Ile-Phe-Arg-Ser-Leu-Leu-Phe-Arg-Val-Met

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 0.50 mg/ml in 25% ethanol / water with sonication

This product is supplied in lyophilized form. It may appear as a solid, gel or film and 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.

DMSO is not recommended as a solvent for this peptide.

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:

Hu et al (2001) Synthetic peptide MMK-1 is a highly specific chemotactic agonist for leukocyte FPRL1. *J.Leukoc.Biol.* **70** 155. PMID: 11435499.

Klein et al (1998) Identification of surrogate agonists for the human FPRL-1 receptor by autocrine selection in yeast. *Nature Biotech.* **16** 1334.

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