

Certificate of Analysis

Print Date: Oct 20th 2021

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Product Name: FSL 1 Catalog No.: 6011 Batch No.: 4

CAS Number: 322455-70-9

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₈₄H₁₄ON₁₄O₁₈S

Batch Molecular Weight: 1666.16

Physical Appearance: White lyophilised solid

Counter Ion: TFA

Solubility: Soluble to 2 mg/ml in water

Storage: Store at -20°C

Peptide Sequence: Cys(Pam₂)-Gly-Asp-Pro-Lys-His-Pro-Lys-Ser-Phe

2. ANALYTICAL DATA

HPLC: Shows 97.6% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid Theoretical Actual		
Ala			Lys	2.00	1.99
Arg			Met		
Asx	1.00	0.94	Phe	1.00	0.98
Cys	1.00	Detected	Pro	2.00	2.00
Glx			Ser	1.00	1.01
Gly	1.00	1.01	Thr		
His	1.00	1.15	Trp		
lle			Tyr		
Leu			Val		

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

www.tocris.com/distributors Tel:+1 612 379 2956



Product Information

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Product Name: FSL 1 Catalog No.: 6011 Batch No.: 4

CAS Number: 322455-70-9

Description:

FSL 1 is a TLR2/6 agonist (also a putative TLR10 ligand). Activates NF- κ B. Induces pro-inflammatory cytokines including IL-8, IL-1 β , CCL20 and TNF- α in vitro. Synergizes with IFN γ to induce CXCL10 release from melanoma cells.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{84}H_{14}0N_{14}O_{18}S$

Batch Molecular Weight: 1666.16

Physical Appearance: White lyophilised solid

Peptide Sequence:

Cys(Pam2)-Gly-Asp-Pro-Lys-His-Pro-Lys-Ser-Phe

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 2 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 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 μ m filter to remove potential bacterial contamination whenever possible.

References:

Le et al (2016) Stable toll-like receptor 10 knockdown in THP-1 cells reduces TLR-ligand-induced proinflammatory cytokine expression. Int.J.Mol.Sci. 17 E859. PMID: 27258267.

Mauldin et al (2015) TLR2/6 agonists and IF.-gamma induce human melanoma cells to produce CXCL10. Int.J.Cancer 137 1386. PMID: 25765738.

Okusawa *et al* (2004) Relationship between structures and biological activities of mycoplasmal diacylated lipopeptides and their recognition by toll-like receptors 2 and 6. Infect.Immun. **72** 1657. PMID: 14977973.

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