

Certificate of Analysis

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Product Name: Pam3CSK4

Catalog No.: 4633

Batch No.: 8

CAS Number: 112208-00-1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₈₁ H ₁₅₆ N ₁₀ O ₁₃ S
Batch Molecular Weight:	1510.24
Physical Appearance:	White lyophilised solid
Net Peptide Content:	77%
Counter Ion:	TFA
Solubility:	Soluble to 1 mg/ml in 50% Ethanol / water
Storage:	Store at -20°C
Peptide Sequence:	Pam ₃ -Cys-Ser-Lys-Lys-Lys-Lys

2. ANALYTICAL DATA

HPLC:	Shows 98.1% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala			Lys	4.00	4.00
Arg			Met		
Asx			Phe		
Cys			Pro		
Glx			Ser	1.00	1.00
Gly			Thr		
His			Trp		
Ile			Tyr		
Leu			Val		

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

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Product Information

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Product Name: Pam3CSK4

Catalog No.: 4633

Batch No.: 8

CAS Number: 112208-00-1

Description:

Toll-like receptor 1/2 (TLR1/2) agonist; induces production of TNF- α and IL-6 in macrophages. Stimulates phosphorylation of p100/p110 and p60 in granulocytic-differentiated HL-60 cells. Promotes differentiation of naive CD4⁺ T cells into T_H17 cells.

Physical and Chemical Properties:

Batch Molecular Formula: C₈₁H₁₅₆N₁₀O₁₃S

Batch Molecular Weight: 1510.24

Physical Appearance: White lyophilised solid

Peptide Sequence:

Pam₃-Cys-Ser-Lys-Lys-Lys-Lys

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in 50% Ethanol / 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: 77% (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 μ m filter to remove potential bacterial contamination whenever possible.

References:

Caproni et al (2012) MF59 and Pam3CSK4 boost adaptive responses to influenza subunit vaccine through an IFN type I-independent mechanism of action. *J. Immunol.* **188** 3088. PMID: 22351935.

St Paul et al (2012) Toll-like receptor ligands induce the expression of interferon-gamma and interleukin-17 in chicken CD4⁺ T cells. *BMC Res. Notes* **1** 616. PMID: 23116495.

Offermanns et al (1992) Lipopeptides are effective stimulators of tyrosine phosphorylation in human myeloid cells. *Biochem. J.* **282** 551. PMID: 1312332.

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