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Print Date: May 15th 2018

Certificate of Analysis

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Product Name: **CALP3** **Catalog No.: 2321** **Batch No.: 6**

CAS Number: 261969-05-5

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	$C_{44}H_{68}N_{10}O_9$
Batch Molecular Weight:	881.08
Physical Appearance:	White lyophilised solid
Net Peptide Content:	70%
Counter Ion:	TFA
Solubility:	Soluble to 1 mg/ml in water
Storage:	Desiccate at -20°C
Peptide Sequence:	Val-Lys-Phe-Gly-Val-Gly-Phe-Lys

2. ANALYTICAL DATA

HPLC:	Shows 97.2% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala			Lys	2.00	2.03
Arg			Met		
Asx			Phe	2.00	1.92
Cys			Pro		
Glx			Ser		
Gly	2.00	2.08	Thr		
His			Trp		
Ile			Tyr		
Leu			Val	2.00	1.97

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

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Product Name: **CALP3** **Catalog No.: 2321** **Batch No.: 6**

CAS Number: 261969-05-5

Description:

Cell-permeable calmodulin (CaM) agonist that binds to the EF-hand/Ca^{2+}-binding site. Activates phosphodiesterase in the absence of Ca^{2+} and inhibits Ca^{2+}-mediated cytotoxicity and apoptosis (IC_{50} = 33 µM).

Physical and Chemical Properties:

Batch Molecular Formula: $C_{44}H_{68}N_{10}O_9$

Batch Molecular Weight: 881.08

Physical Appearance: White lyophilised solid

Peptide Sequence:

Val-Lys-Phe-Gly-Val-Gly-Phe-Lys

Storage: Desiccate at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in water

Net Peptide Content: 70% (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:

Ten Broeke *et al* (2003) Ca^{2+} sensors modulate asthmatic symptoms in an allergic model for asthma. Eur.J.Pharmacol. ***476*** 151. PMID: 12969760.

Manion *et al* (2000) A new type of Ca^{2+} channel blocker that targets Ca^{2+} sensors and prevents Ca^{2+}-mediated apoptosis. FASEB J. ***14*** 1297. PMID: 10877822.

Villain *et al* (2000) *De novo* design of peptides targeted to the EF hands of calmodulin. J.Biol.Chem. ***274*** 2676.

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