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Print Date: Jan 15th 2020

Certificate of Analysis

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Product Name: **PKC β pseudosubstrate** **Catalog No.: 1792** **Batch No.: 3**

CAS Number: 172308-76-8

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{177}H_{294}N_{62}O_{38}S_3$

Batch Molecular Weight: 3994.84

Physical Appearance: White lyophilised solid

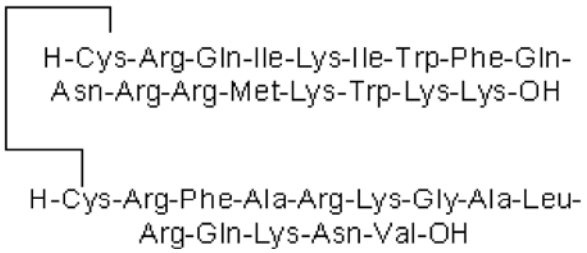
Net Peptide Content: 67%

Counter Ion: TFA

Solubility: Soluble to 1 mg/ml in water

Storage: Store at -20°C

Peptide Sequence:



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	2.00	2.00	Lys	6.00	5.94
Arg	6.00	5.78	Met	1.00	0.96
Asx	2.00	1.97	Phe	2.00	1.98
Cys	2.00	Detected	Pro		
Glx	3.00	3.02	Ser		
Gly	1.00	1.05	Thr		
His			Trp	2.00	Detected
Ile	2.00	1.64	Tyr		
Leu	1.00	1.13	Val	1.00	1.00

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Product Information

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CAS Number: 172308-76-8

Description:

Selective cell-permeable peptide inhibitor of protein kinase C (IC_{50} ~ 0.5 μM). Consists of amino acids 19 - 31 of PKC pseudosubstrate domain linked by a disulphide bridge to a cell permeabilisation Antennapedia domain vector peptide. The Antennapedia peptide is actively taken up by intact cells, at 4 or 37°C, ensuring rapid and effective uptake of the inhibitor peptide. Once inside the cell, the disulphide bonds are subjected to reduction in the cytoplasm leading to release of the inhibitor peptide.

Physical and Chemical Properties:

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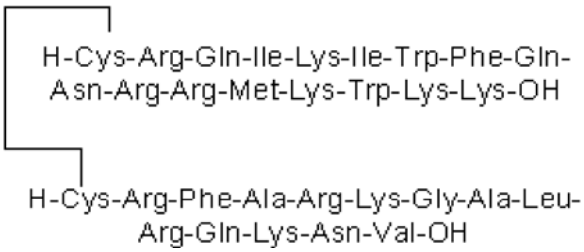
Peptide Sequence:



Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 1 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.

Net Peptide Content: 67% (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:

Theodore *et al* (1995) Intraneuronal delivery of protein kinase C pseudosubstrate leads to growth cone collapse. J.Neurosci. ***15*** 7158. PMID: 7472470.

Derossi *et al* (1994) The third helix of the antennapedia homeodomain translocates through biological membranes. J.Biol.Chem. ***269*** 10444. PMID: 8144628.

House and Kemp (1987) Protein kinase C contains a pseudosubstrate prototope in its regulatory domain. Science ***238*** 1726. PMID: 3686012.

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