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TOCRIS

Print Date: Mar 12th 2024

Certificate of Analysis

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Product Name: **Pep 2-8** **Catalog No.: 6423** **Batch No.: 3**

CAS Number: 1541011-97-5

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	$C_{83}H_{110}N_{16}O_{24}$
Batch Molecular Weight:	1715.88
Physical Appearance:	White lyophilised solid
Net Peptide Content:	92%
Counter Ion:	Ammonium
Solubility:	Soluble to 2 mg/ml in PBS (pH 7.4)
Storage:	Store at -20°C
Peptide Sequence:	Ac-Thr-Val-Phe-Thr-Ser-Trp-Glu-Glu-Tyr-Leu-Asp-Trp-Val-NH_2

2. ANALYTICAL DATA

HPLC:	Shows 98% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala			Lys		
Arg			Met		
Asx	1.00	0.58	Phe	1.00	0.97
Cys			Pro		
Glx	2.00	1.97	Ser	1.00	0.99
Gly			Thr	2.00	2.11
His			Trp	2.00	Detected
Ile			Tyr	1.00	1.05
Leu	1.00	0.99	Val	2.00	1.91

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Product Name: **Pep 2-8** **Catalog No.: 6423** **3**

CAS Number: 1541011-97-5

Description:

Pep 2-8 is a proprotein convertase subtilisin/kexin type 9 (PCSK9) inhibitor. Potent inhibitor of PCSK9 binding to LDL receptor (IC_{50} = 0.8 µM). Restores LDL uptake in HepG2 cells treated with PCSK9.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{83}H_{110}N_{16}O_{24}$

Batch Molecular Weight: 1715.88

Physical Appearance: White lyophilised solid

Peptide Sequence:

Ac-Thr-Val-Phe-Thr-Ser-Trp-Glu-Glu-Tyr-Leu-Asp-Trp-Val-NH_2

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 2 mg/ml in PBS (pH 7.4)

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.

Net Peptide Content: 92% (Remaining weight made up of counterions and residual water).

Counter Ion: Ammonium

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:

Zhang *et al* (2014) Identification of a small peptide that inhibits PCSK9 protein binding to the low density lipoprotein receptor. J.Biol.Chem. ***289*** 942. PMID: 24225950.