Print Date: Aug 10th 2017

Certificate of Analysis

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Product Name: **[Ala^{17}]-MCH** **Catalog No.: 3434** **Batch No.: 2**

CAS Number: 359784-84-2

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{97}H_{155}N_{29}O_{26}S_4$

Batch Molecular Weight: 2271.71

Physical Appearance: White lyophilised solid

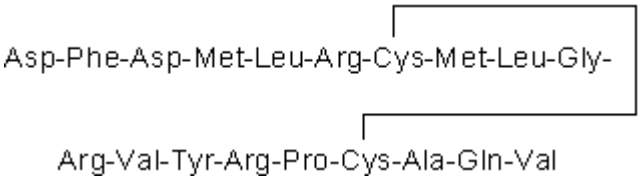
Net Peptide Content: 79%

Counter Ion: TFA

Solubility: Soluble to 2 mg/ml in water

Storage: Store at -20°C

Peptide Sequence:



2. ANALYTICAL DATA

HPLC: Shows 98.2% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala	1.00	1.02	Lys		
Arg	3.00	2.87	Met	2.00	1.93
Asx	2.00	2.01	Phe	1.00	0.95
Cys			Pro	1.00	1.04
Glx	1.00	1.06	Ser		
Gly	1.00	1.04	Thr		
His			Trp		
Ile			Tyr	1.00	1.03
Leu	2.00	2.04	Val	2.00	1.93

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Product Name: **[Ala^{17}]-MCH** **Catalog No.: 3434** **Batch No.: 2**

CAS Number: 359784-84-2

Description:

Potent melanin-concentrating hormone (MCH) receptor agonist (EC_{50} values are 17 and 54 nM at MCH_1 and MCH_2 receptors respectively). Displays some selectivity towards MCH_1 over MCH_2 (K_i values are 0.16 and 34 nM respectively).

Physical and Chemical Properties:

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Batch Molecular Weight: 2271.71

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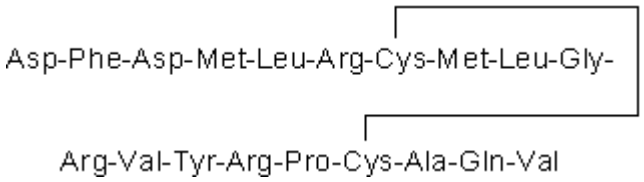
Peptide Sequence:



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.

Net Peptide Content: 79% (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:

Gao *et al* (2004) Europium-labeled melanin-concentrating hormone analogues: ligands for measuring binding to melanin-concentrating hormone receptors 1 and 2. Anal.Biochem. ***328*** 187. PMID: 15113696.

Bednarek *et al* (2001) Short segment of human melanin-concentrating hormone that is sufficient for full activation of human melanin-concentrating hormone receptors 1 and 2. Biochemistry ***40*** 9379. PMID: 11478907.