bio-techne
TOCRIS

Print Date: Mar 30th 2023

Certificate of Analysis

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Product Name: **Apelin-36 (human)** **Catalog No.: 2426** **Batch No.: 8**

CAS Number: 252642-12-9

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{184}H_{297}N_{69}O_{43}S$

Batch Molecular Weight: 4195.87

Physical Appearance: White lyophilised solid

Counter Ion: TFA

Solubility: Soluble to 1 mg/ml in water

Storage: Store at -20°C

Peptide Sequence: Leu-Val-Gln-Pro-Arg-Gly-Ser-Arg-Asn-Gly-Pro-Gly-Pro-Trp-Gln-Gly-Gly-Arg-Arg-Lys-Phe-Arg-Arg-Gln-Arg-Pro-Arg-Leu-Ser-His-Lys-Gly-Pro-Met-Pro-Phe

2. ANALYTICAL DATA

HPLC: Shows 96.4% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala			Lys	2.00	2.04
Arg	8.00	7.91	Met	1.00	1.00
Asx	1.00	1.08	Phe	2.00	2.06
Cys			Pro	6.00	6.05
Glx	3.00	3.06	Ser	2.00	1.37
Gly	6.00	5.91	Thr		
His	1.00	1.03	Trp	1.00	0.27
Ile			Tyr		
Leu	2.00	1.90	Val	1.00	0.96

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Product Name: **Apelin-36 (human)** **Catalog No.: 2426** **8**

CAS Number: 252642-12-9

Description:

Apelin-36 (human) is an endogenous APJ receptor agonist (EC_{50} = 20 nM) that is secreted by adipocytes. Binds with high affinity to human APJ receptors expressed in HEK 293 cells (pIC_{50}= 8.61). Involved in regulation of cardiovascular function, fluid homeostasis and feeding. Blocks entry of some HIV-1 and HIV-2 strains into NP-2/CD4 cells expressing APJ.

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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.

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:

Medhurst *et al* (2003) Pharmacological and immunohistochemical characterization of the APJ receptor and its endogenous ligand apelin. J.Neurochem. ***84*** 1162. PMID: 12603839.

Zou *et al* (2000) Apelin peptides block the entry of human immunodeficiency virus (HIV). FEBS Lett. ***473*** 15. PMID: 10802050.

Tatemoto *et al* (1998) Isolation and characterization of a novel endogenous peptide ligand for the human APJ receptor. Biochem.Biophys.Res.Comm. ***251*** 471.