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Print Date: Jan 4th 2022

Certificate of Analysis

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Product Name: [cPP$^{1-7}$,NPY$^{19-23}$,Ala^{31},Aib^{32},Gln^{34}] - hPancreatic Polypeptide **Catalog No.: 1365** **Batch No.: 15**

CAS Number: 313988-89-5

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{183}H_{281}N_{57}O_{54}S_2$

Batch Molecular Weight: 4207.67

Physical Appearance: White lyophilised solid

Counter Ion: TFA

Solubility: Soluble to 1 mg/ml in water

Storage: Store at -20°C

Peptide Sequence: Gly-Pro-Ser-Gln-Pro-Thr-Tyr-Pro-Gly-Asp-Asn-Ala-Thr-Pro-Glu-Gln-Met-Ala-Arg-Tyr-Tyr-Ser-Ala-Leu-Arg-Arg-Tyr-Ile-Asn-Met-Ala-Aib-Arg-Gln-Arg-Tyr-NH_2

2. ANALYTICAL DATA

HPLC: Shows 97% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala	4.00	3.79	Lys		
Arg	5.00	5.08	Met	2.00	1.94
Asx	3.00	3.30	Phe		
Cys			Pro	4.00	3.89
Glx	4.00	4.09	Ser	2.00	2.03
Gly	2.00	2.02	Thr	2.00	2.18
His			Trp		
Ile	1.00	1.05	Tyr	5.00	5.01
Leu	1.00	1.08	Val		

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CAS Number: 313988-89-5

Description:

[cPP$^{1-7}$,NPY$^{19-23}$,Ala^{31},Aib^{32},Gln^{34}] - hPancreatic Polypeptide is a potent, selective peptide agonist for the neuropeptide Y Y_5 receptor (IC_{50} values for inhibition of NPY binding to human Y_5, Y_1, Y_2 and Y_4 receptors are 0.24, 530, > 500, and 51 nM respectively, K_i at Y_5 = 0.1 - 0.15 nM). Stimulates food intake in vivo.

Physical and Chemical Properties:

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Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in water

Aib - Aminoisobutyric acid. 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:

Dumont *et al* (2005) BODIPY®-conjugated neuropeptide Y ligands: new fluorescent tools to tag Y1, Y2, Y4 and Y5 receptor subtypes. Br.J.Pharmacol. ***146*** 1069. PMID: 16231000.

Cabrele *et al* (2000) The first selective agonist for the neuropeptide YY_5 receptor increases food intake in rats. J.Biol.Chem. ***275*** 36043. PMID: 10944518.