

Product Name: Peptide YY (3-36)

Catalog No.: 1618

Batch No.: 9

CAS Number: 126339-09-1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇₆H₂₇₂N₅₂O₅₄
Batch Molecular Weight: 3980.4
Physical Appearance: White lyophilised solid
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: Ala-Lys-Pro-Glu-Ala-Pro-Gly-Glu-Asp-Ala-Ser-Pro-Glu-Glu-Leu-Ser-Arg-Tyr-Tyr-Ala-Ser-Leu-Arg-His-Tyr-Leu-Asn-Leu-Val-Thr-Arg-Gln-Arg-Tyr-NH₂

2. ANALYTICAL DATA

HPLC: Shows 99.0% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	4.00	3.93	Lys	1.00	1.02
Arg	4.00	3.99	Met		
Asx	2.00	2.10	Phe		
Cys			Pro	3.00	2.99
Glx	5.00	5.01	Ser	3.00	3.00
Gly	1.00	1.03	Thr	1.00	0.99
His	1.00	0.99	Trp		
Ile			Tyr	4.00	3.93
Leu	4.00	4.00	Val	1.00	0.98

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Peptide YY (3-36) is a Y₂ selective agonist. IC₅₀ values are 0.11 and 1050 nM for inhibition of ¹²⁵I-PYY binding to Y₂ and Y₁ receptors respectively. Inhibits food intake and reduces weight gain in vivo. Brain penetrant.

Physical and Chemical Properties:

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Physical Appearance: White lyophilised solid

Peptide Sequence:

Ala-Lys-Pro-Glu-Ala-Pro-Gly-Glu-Asp-Ala-
Ser-Pro-Glu-Glu-Leu-Ser-Arg-Tyr-Tyr-Ala-
Ser-Leu-Arg-His-Tyr-Leu-Asn-Leu-Val-Thr-
Arg-Gln-Arg-Tyr-NH₂

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 as 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:

Nonaka et al (2003) Characterization of blood-brain barrier permeability to PYY₃₋₃₆ in the mouse. *J.Pharmacol.Exp.Ther.* **306** 948. PMID: 12750431.

Batterham et al (2002) Gut hormone PYY₃₋₃₆ physiologically inhibits food intake. *Nature* **418** 650. PMID: 12167864.

Keire et al (2000) Primary structures of PYY, [Pro³⁴]PYY and PYY-(3-36) confer different conformations and receptor selectivity. *Am.J.Physiol.Gastrointest.Liver Physiol.* **279** G126. PMID: 10898754.

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bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel:+1 612 379 2956