

Product Name: PEN (mouse)

Catalog No.: 6308

Batch No.: 2

CAS Number: 1236955-25-1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₀₂H₁₆₉N₂₇O₃₄
Batch Molecular Weight: 2317.62
Physical Appearance: White lyophilised solid
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in PBS (pH 7.4)
Storage: Store at -20°C
Peptide Sequence: Ser-Val-Asp-Gln-Asp-Leu-Gly-Pro-Glu-Val-Pro-Pro-Glu-Asn-Val-Leu-Gly-Ala-Leu-Leu-Arg-Val

2. ANALYTICAL DATA

HPLC: Shows 99.3% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid		Theoretical	Actual	Amino Acid		Theoretical	Actual
Ala	1.00	1.05	Lys				
Arg	1.00	1.01	Met				
Asx	3.00	3.00	Phe				
Cys			Pro	3.00	3.00		
Glx	3.00	2.97	Ser	1.00	0.98		
Gly	2.00	2.00	Thr				
His			Trp				
Ile			Tyr				
Leu	4.00	3.63	Val	4.00	3.99		

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

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CAS Number: 1236955-25-1

Description:

PEN (mouse) is a endogenous peptide GPR83 agonist. ProSAAS-derived neuropeptide. Activates phospholipase C (PLC)-mediated signaling cascade in mouse hypothalamus.

Physical and Chemical Properties:Batch Molecular Formula: C₁₀₂H₁₆₉N₂₇O₃₄

Batch Molecular Weight: 2317.62

Physical Appearance: White lyophilised solid

Peptide Sequence:

Ser-Val-Asp-Gln-Asp-Leu-Gly-Pro-Glu-Val-
Pro-Pro-Glu-Asn-Val-Leu-Gly-Ala-Leu-Leu-
Arg-Val

Storage: Store at -20°C**Solubility & Usage Info:**

Soluble to 1 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.

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:

Mack *et al* (2019) Neuropeptide PEN and its receptor GPR83: distribution, signaling, and regulation. *ACS Chem.Neurosci.* **10** 1884. PMID: 30726666.

Gomes *et al* (2016) Identification of GPR83 as the receptor for the neuroendocrine peptide PEN. *Sci.Signal.* **9** ra43. PMID: 27117253.

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