

Certificate of Analysiswww.tocris.com**Product Name:** PEN (human)**Catalog No.:** 6307**Batch No.:** 1

CAS Number: 597578-70-6

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₉₇ H ₁₅₉ N ₂₇ O ₃₂
Batch Molecular Weight:	2215.49
Physical Appearance:	White lyophilised solid
Net Peptide Content:	78%
Counter Ion:	TFA
Solubility:	Soluble to 1 mg/ml in PBS (pH 7.4)
Storage:	Store at -20°C
Peptide Sequence:	Ala-Ala-Asp-His-Asp-Val-Gly-Ser-Glu-Leu-Pro-Pro-Glu-Gly-Val-Leu-Gly-Ala-Leu-Leu-Arg-Val

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	3.00	2.86	Lys	
Arg	1.00	1.02	Met	
Asx	2.00	1.81	Phe	
Cys			Pro	2.00
Glx	2.00	1.79	Ser	1.00
Gly	3.00	3.07	Thr	0.98
His	1.00	0.96	Trp	
Ile			Tyr	
Leu	4.00	4.07	Val	3.00
				2.99

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

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Product Information

www.tocris.com**Product Name:** PEN (human)**Catalog No.:** 6307**Batch No.:** 1

CAS Number: 597578-70-6

Description:

Endogenous peptide GPR83 agonist. ProSAAS-derived neuropeptide.

Physical and Chemical Properties:Batch Molecular Formula: C₉₇H₁₅₉N₂₇O₃₂

Batch Molecular Weight: 2215.49

Physical Appearance: White lyophilised solid

Peptide Sequence:

Ala-Ala-Asp-His-Asp-Val-Gly-Ser-Glu-Leu-Pro-Pro-Glu-Gly-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 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: 78% (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:

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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