

Certificate of Analysis

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Product Name: Galanin (2-29) (rat)

Catalog No.: 1451

Batch No.: 4

CAS Number: 141696-11-9

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₁₃₉ H ₂₀₇ N ₄₂ O ₄₀
Batch Molecular Weight:	3107.42
Physical Appearance:	White lyophilised solid
Net Peptide Content:	75.3%
Counter Ion:	TFA
Solubility:	Soluble to 0.60 mg/ml in water
Storage:	Desiccate at -20°C
Peptide Sequence:	Trp-Thr-Leu-Asn-Ser-Ala-Gly-Tyr-Leu-Leu-Gly-Pro-His-Ala-Ile-Asp-Asn-His-Arg-Ser-Phe-Ser-Asp-Lys-His-Gly-Leu-Thr-NH ₂

2. ANALYTICAL DATA

HPLC:	Shows 96.8% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	2.00	1.96	Lys	1.00	0.97
Arg	1.00	1.08	Met		
Asx	4.00	3.96	Phe	1.00	1.00
Cys			Pro	1.00	1.03
Glx	3.00	3.00	Ser	3.00	2.68
Gly	3.00	3.11	Thr	2.00	1.93
His	3.00	2.99	Trp		
Ile	1.00	1.00	Tyr	1.00	1.00
Leu	4.00	4.01	Val		

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

Product Information

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Batch No.: 4

CAS Number: 141696-11-9

Description:

Peptide agonist for galanin receptors, showing selectivity for GAL₂ (K_i values are 85, 1.9 and 12.6 nM at rat GAL₁, GAL₂ and GAL₃ receptors respectively).

Physical and Chemical Properties:

Batch Molecular Formula: C₁₃₉H₂₀₇N₄₂O₄₀

Batch Molecular Weight: 3107.42

Physical Appearance: White lyophilised solid

Peptide Sequence:

Trp-Thr-Leu-Asn-Ser-Ala-Gly-Tyr-Leu-Leu-
Gly-Pro-His-Ala-Ile-Asp-Asn-His-Arg-Ser-
Phe-Ser-Asp-Lys-His-Gly-Leu-Thr-NH₂

Storage: Desiccate at -20°C

Solubility & Usage Info:

Soluble to 0.60 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.

Net Peptide Content: 75.3% (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 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:

Amiranoff et al (1989) Structural requirements for galanin action in the pancreatic β cell line rin m 5F. *Eur.J.Pharmacol.* **163** 205. PMID: 2472967.

Wang et al (1997) Cloning and expressional characterization of a novel galanin receptor. *J.Biol.Chem.* **272** 31949. PMID: 9405385.

Wang et al (1997) Molecular cloning and pharmacological characterization of a new galanin receptor subtype. *Mol.Pharmacol.* **52** 337. PMID: 9281594.

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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