

Certificate of Analysis

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Product Name: Galanin (1-29) (rat, mouse)

Catalog No.: 2696

Batch No.: 11

CAS Number: 114547-31-8

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄₁H₂₁₁N₄₃O₄₁
Batch Molecular Weight: 3164.48
Physical Appearance: White lyophilised solid
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: Gly-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

2. ANALYTICAL DATA

HPLC: Shows 98.0% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid		Theoretical	Actual	Amino Acid		Theoretical	Actual
Ala	2.00	2.02	Lys	1.00	1.02		
Arg	1.00	1.00	Met				
Asx	4.00	3.93	Phe	1.00	1.10		
Cys			Pro	1.00	1.06		
Glx			Ser	3.00	2.94		
Gly	4.00	3.99	Thr	2.00	2.03		
His	3.00	3.00	Trp	1.00	Not Detected		
Ile	1.00	0.95	Tyr	1.00	1.04		
Leu	4.00	4.01	Val				

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

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Description:

Galanin (1-29) (rat, mouse) is a non-selective galanin receptor agonist (K_i values are 0.98, 1.48 and 1.47 nM for GAL₁, GAL₂ and GAL₃ respectively). Anticonvulsant; prevents the occurrence of full kindled seizures in rats.

Physical and Chemical Properties:

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Peptide Sequence:

Gly-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: Store at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in water

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:

Mazarati *et al* (2006) Regulation of kindling epileptogenesis by hippocampal galanin type 1 and type 2 receptors: the effects of subtype-selective agonists and the role of G-protein-mediated signaling. *J.Pharmacol.Exp.Ther.* **318** 700. PMID: 16699066.

Branchek *et al* (2000) Galanin receptor subtypes. *TiPS.* **21** 109.

Wang *et al* (1997) Cloning and expression characterization of a novel galanin receptor. *J.Biol.Chem.* **272** 51. PMID: 8995226.

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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