

Certificate of Analysis

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Product Name: Caerulein
CAS Number: 17650-98-5

Catalog No.: 6264 **Batch No.:** 4

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₅₈H₇₃N₁₃O₂₁S₂
Batch Molecular Weight: 1352.4
Physical Appearance: White lyophilised solid
Net Peptide Content: 87.5%
Counter Ion: Ammonium acetate
Solubility: Soluble to 1 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: Glp-Gln-Asp-Tyr(SO₃H)-Thr-Gly-Trp-Met-Asp-Phe-NH₂

2. ANALYTICAL DATA

HPLC: Shows 98.1% purity

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical		Actual		Amino Acid Theoretical		Actual	
Ala				Lys			
Arg				Met	1.00		0.97
Asx	2.00		2.00	Phe	1.00		1.02
Cys				Pro			
Glx	2.00		2.01	Ser			
Gly	1.00		0.98	Thr	1.00		0.87
His				Trp	1.00		0.99
Ile				Tyr	1.00		0.63
Leu				Val			

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

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

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CAS Number: 17650-98-5

Description:

CCK agonist. Stimulates biosynthesis of pancreatic enzymes in AR4-2J pancreatic cells in vitro. Induces acute pancreatitis in mice. Also enhances proteasome activity in Gdeg mice.

Physical and Chemical Properties:Batch Molecular Formula: C₅₈H₇₃N₁₃O₂₁S₂

Batch Molecular Weight: 1352.4

Physical Appearance: White lyophilised solid

Peptide Sequence:Glp-Gln-Asp-Tyr(SO₃H)-Thr-Gly-Trp-Met-Asp-Phe-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.

Net Peptide Content: 87.5% (Remaining weight made up of counterions and residual water).**Counter Ion:** Ammonium acetate**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:

Murakami *et al* (2017) Yes-associated protein mediates immune reprogramming in pancreatic ductal adenocarcinoma. *Oncogene* **36** 1232. PMID: 27546622.

Furuyama *et al* (2016) Proteasome activity is required for the initiation of precancerous pancreatic lesions. *Sci.Rep.* **6** 27044. PMID: 27244456.

Pradel *et al* (1993) Caerulein and gastrin(2-17 ds) regulate differently synthesis of secretory enzymes, mRNA levels and cell proliferation in pancreatic acinar cells (AR4-2J). *Biochem.J.* **290** 219. PMID: 7679894.

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North America

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