

Certificate of Analysis

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

Catalog No.: 6264 **Batch No.:** 12

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₅₈H₇₃N₁₃O₂₁S₂
Batch Molecular Weight: 1352.4
Physical Appearance: White lyophilised solid
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 95.0% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical			Actual		
Ala			Lys		
Arg			Met	1.00	0.96
Asx	2.00	2.01	Phe	1.00	1.00
Cys			Pro		
Glx	2.00	2.04	Ser		
Gly	1.00	1.00	Thr	1.00	0.84
His			Trp	1.00	0.40
Ile			Tyr	1.00	1.00
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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Catalog No.: 6264

Batch No.: 12

CAS Number: 17650-98-5

Description:

Caerulein is a 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:

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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 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: 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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