

# Certificate of Analysis

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

**Catalog No.:** 6264 **Batch No.:** 9

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>58</sub>H<sub>73</sub>N<sub>13</sub>O<sub>21</sub>S<sub>2</sub>  
**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(SO<sub>3</sub>H)-Thr-Gly-Trp-Met-Asp-Phe-NH<sub>2</sub>

## 2. ANALYTICAL DATA

**HPLC:** Shows 97.0% purity  
**Mass Spectrum:** Consistent with structure

## 3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical			Actual		
Ala			Lys		
Arg			Met	1.00	0.97
Asx	2.00	2.03	Phe	1.00	0.99
Cys			Pro		
Glx	2.00	2.03	Ser		
Gly	1.00	0.97	Thr	1.00	0.86
His			Trp	1.00	0.62
Ile			Tyr	1.00	1.01
Leu			Val		

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

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**Product Name:** Caerulein**Catalog No.:** 6264**9**

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:**Batch Molecular Formula: C<sub>58</sub>H<sub>73</sub>N<sub>13</sub>O<sub>21</sub>S<sub>2</sub>

Batch Molecular Weight: 1352.4

Physical Appearance: White lyophilised solid

**Peptide Sequence:**Glp-Gln-Asp-Tyr(SO<sub>3</sub>H)-Thr-Gly-Trp-Met-Asp-Phe-NH<sub>2</sub>**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.

**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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