

## Certificate of Analysis

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**Product Name:** Neuromedin B (porcine)

**Catalog No.:** 1908

**Batch No.:** 8

CAS Number: 87096-84-2

### 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>52</sub> H <sub>73</sub> N <sub>15</sub> O <sub>12</sub> S
<b>Batch Molecular Weight:</b>	1132.3
<b>Physical Appearance:</b>	White lyophilised solid
<b>Net Peptide Content:</b>	82.4%
<b>Counter Ion:</b>	TFA
<b>Solubility:</b>	Soluble to 1 mg/ml in water
<b>Storage:</b>	Desiccate at -20°C
<b>Peptide Sequence:</b>	Gly-Asn-Leu-Trp-Ala-Thr-Gly-His-Phe-Met-NH <sub>2</sub>

### 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 95.6% purity
<b>Mass Spectrum:</b>	Consistent with structure

### 3. AMINO ACID ANALYSIS DATA

Amino Acid		Theoretical	Actual	Amino Acid		Theoretical	Actual
Ala		1.00	0.97	Lys			
Arg				Met	1.00	1.00	
Asx	1.00	1.09		Phe	1.00	0.99	
Cys				Pro			
Glx				Ser			
Gly	2.00	1.95		Thr	1.00	0.91	
His	1.00	1.01		Trp	1.00	0.67	
Ile				Tyr			
Leu	1.00	0.98		Val			

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

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**Product Name:** Neuromedin B (porcine)

**Catalog No.:** 1908

**Batch No.:** 8

CAS Number: 87096-84-2

**Description:**

Mammalian bombesin-like peptide and endogenous ligand for the neuromedin B receptor ( $IC_{50} = 2$  nM); first isolated from pig spinal cord. Regulates endocrine and exocrine secretion, smooth muscle contraction, blood pressure, feeding and cell growth.

**Physical and Chemical Properties:**

Batch Molecular Formula:  $C_{52}H_{73}N_{15}O_{12}S$

Batch Molecular Weight: 1132.3

Physical Appearance: White lyophilised solid

**Peptide Sequence:**

Gly-Asn-Leu-Trp-Ala-Thr-Gly-His-Phe-Met-NH<sub>2</sub>

**Storage:** Desiccate 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:** 82.4% (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:**

**Ohki-Hamazaki *et al*** (2000) Neuromedin B. *Prog.Neurobiol.* **62** 297. PMID: 10840151.

**Sainz *et al*** (1998) Four amino acid residues are critical for high affinity binding of neuromedin B to the neuromedin B receptor. *J.Biol.Chem.* **273** 15927. PMID: 9632639.

**Minamino *et al*** (1983) Neuromedin B: a novel bombesin-like peptide identified in porcine spinal cord. *Biochem.Biophys.Res.Commun.* **114** 541. PMID: 6882442.

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