bio-techne
TOCRIS

Print Date: Mar 8th 2024

Certificate of Analysis

www.tocris.com

Product Name: **Guanylin (human)** **Catalog No.: 1898** **Batch No.: 9**

CAS Number: 183200-12-6

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{58}H_{87}N_{15}O_{21}S_4$

Batch Molecular Weight: 1458.65

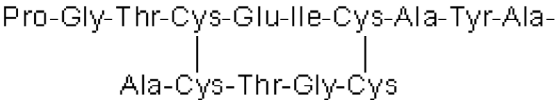
Physical Appearance: White lyophilised solid

Counter Ion: TFA

Solubility: Soluble to 1 mg/ml in water

Storage: Store at -20°C

Peptide Sequence:



2. ANALYTICAL DATA

HPLC: Shows 97.3% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala	3.00	2.98	Lys		
Arg			Met		
Asx			Phe		
Cys	4.00	Detected	Pro	1.00	1.01
Glx	1.00	1.00	Ser		
Gly	2.00	2.01	Thr	2.00	1.98
His			Trp		
Ile	1.00	0.98	Tyr	1.00	1.04
Leu			Val		

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Product Name: **Guanylin (human)** **Catalog No.: 1898** **9**

CAS Number: 183200-12-6

Description:

Guanylin (human) is an endogenous peptide activator of intestinal guanylyl cyclase; secreted mainly by the gastrointestinal mucosa. Regulates water and electrolyte transport in intestinal and renal epithelia.

Physical and Chemical Properties:

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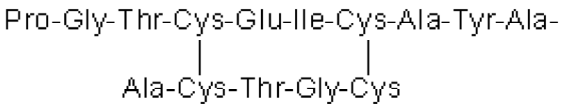

Storage: Store at -20°C

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 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:

Beltowski (2001) Guanylin and related peptides. J.Physiol.Pharmacol. ***52*** 351. PMID: 11596856.

Nokihara *et al* (1997) Synthesis, solution structure, binding activity, and cGMP activation of human guanylin and its disulfide isomer. Regul.Pept. ***70*** 111. PMID: 9272623.

Currie *et al* (1992) Guanylin: an endogenous activator of intestinal guanylate cyclase. Proc.Natl.Acad.Sci.U.S.A. ***89*** 947. PMID: 1346555.