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Print Date: Mar 25th 2022

Certificate of Analysis

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Product Name: **Gap 27** **Catalog No.: 1476** **Batch No.: 13**

CAS Number: 198284-64-9

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{60}H_{101}N_{15}O_{17}$

Batch Molecular Weight: 1304.55

Physical Appearance: White lyophilised solid

Counter Ion: TFA

Solubility: Soluble to 1 mg/ml in water

Storage: Store at -20°C

Peptide Sequence: Ser-Arg-Pro-Thr-Glu-Lys-Thr-Ile-Phe-Ile-Ile

2. ANALYTICAL DATA

HPLC: Shows 99.2% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala			Lys	1.00	0.99
Arg	1.00	0.99	Met		
Asx			Phe	1.00	1.00
Cys			Pro	1.00	0.99
Glx	1.00	1.02	Ser	1.00	1.01
Gly			Thr	2.00	2.06
His			Trp		
Ile	3.00	2.14	Tyr		
Leu			Val		

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Product Name: **Gap 27** **Catalog No.: 1476** **Batch No.: 13**

CAS Number: 198284-64-9

Description:

Gap 27 is a peptide derived from connexin 43 that is a selective gap junction blocker. Attenuates ACh-induced arterial relaxation and reduces K^+-mediated smooth muscle repolarization in endothelium-intact vessels in vitro.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{60}H_{101}N_{15}O_{17}$

Batch Molecular Weight: 1304.55

Physical Appearance: White lyophilised solid

Peptide Sequence:

Ser-Arg-Pro-Thr-Glu-Lys-Thr-Ile-Phe-Ile-Ile

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: 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:

Richards *et al* (2001) Suppression of K^+-induced hyperpolarization by phenylephrine in rat mesenteric artery: relevance to studies of endothelium-derived hyperpolarizing factor. Br.J.Pharmacol. ***134*** 1. PMID: 11522590.

Ko *et al* (2000) Biochemical and functional characterization of intercellular adhesion and gap junctions in fibroblasts. Am.J.Physiol.Cell Physiol. ***279*** C147. PMID: 10898726.

Chaytor *et al* (1998) Central role of heterocellular gap junctional communication in endothelium-dependent relaxations of rabbit arteries. J.Physiol. ***508*** 561. PMID: 9508817.