

Product Name: TAT-Gap19(I130A)

Catalog No.: 7402

Batch No.: 2

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁₆H₂₀₆N₄₆O₂₆
Batch Molecular Weight: 2661.2
Physical Appearance: White lyophilised solid
Counter Ion: TFA
Solubility: Soluble to 2 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: Tyr-Gly-Arg-Lys-Lys-Arg-Arg-Gln-Arg-Arg-Arg-Lys-Gln-Ala-Glu-Ile-Lys-Lys-Phe-Lys

2. ANALYTICAL DATA

HPLC: Shows 98.5% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical			Actual		
Ala	1.00	1.00	Lys	6.00	5.80
Arg	6.00	6.07	Met		
Asx			Phe	1.00	1.00
Cys			Pro		
Glx	3.00	2.90	Ser		
Gly	1.00	1.01	Thr		
His			Trp		
Ile	1.00	0.99	Tyr	1.00	1.07
Leu			Val		

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

Product Name: TAT-Gap19(I130A)**Catalog No.:** 7402**2****Description:**

TAT-Gap19(I130A) is a control peptide for TAT-Gap19 (Cat. No. 6227), a Cx43 hemichannel blocker. TAT-Gap19(I130A) consists of TAT-GAP19 with a I130A amino acid residue change at a key residue for GAP19 activity. In C6 glioma cells expression Cx43, TAT-GAP19(I130A) does not inhibit $[Ca^{2+}]_i$ -triggered ATP release at 200 μ M. TAT-Gap19(I130A) is cell permeable.

Physical and Chemical Properties:Batch Molecular Formula: $C_{116}H_{206}N_{46}O_{26}$

Batch Molecular Weight: 2661.2

Physical Appearance: White lyophilised solid

Peptide Sequence:

Tyr-Gly-Arg-Lys-Lys-Arg-Arg-Gln-Arg-Arg-Arg-Lys-Gln-Ala-Glu-Ile-Lys-Lys-Phe-Lys

Storage: Store at -20°C**Solubility & Usage Info:**

Soluble to 2 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 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 μ m filter to remove potential bacterial contamination whenever possible.

References:

Walrave et al (2016) Inhibition of connexin43 hemichannels impairs spatial short-term memory without affecting spatial working memory. *Front. Cell Neurosci.* **10** 288. PMID: 28066184.

Wang et al (2013) Selective inhibition of Cx43 hemichannels by Gap19 and its impact on myocardial ischemia/reperfusion injury. *Basic Res. Cardiol.* **108** 309. PMID: 23184389.

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