

Certificate of Analysis

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Product Name: Guangxitoxin 1E

Catalog No.: 5676

Batch No.: 6

CAS Number: 1233152-82-3

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₁₇₈ H ₂₄₈ N ₄₄ O ₄₅ S ₇
Batch Molecular Weight:	3948.61
Physical Appearance:	White solid
Counter Ion:	TFA
Solubility:	Soluble to 1 mg/ml in water
Storage:	Store at -20°C
Peptide Sequence:	Glu-Gly-Glu-Cys-Gly-Gly-Phe-Trp-Trp-Lys- Cys-Gly-Ser-Gly-Lys-Pro-Ala-Cys-Cys-Pro- Lys-Tyr-Val-Cys-Ser-Pro-Lys-Trp-Gly-Leu- Cys-Asn-Phe-Pro-Met-Pro

2. ANALYTICAL DATA

HPLC:	Shows 96.8% purity
Mass Spectrum:	Consistent with structure

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

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Description:

Guangxitoxin 1E is a K_v2.1 and K_v2.2 channel blocker (IC₅₀ values are 1-3 nM). Enhances glucose-stimulated insulin secretion from human islets in vitro, but not from islet cells lacking the K_v2.1 channel. Has no significant effect on plasma insulin, glucagon or blood glucose levels in mice, but increases plasma somatostatin levels.

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Batch Molecular Weight: 3948.61

Physical Appearance: White solid

Peptide Sequence:

Glu-Gly-Glu-Cys-Gly-Gly-Phe-Trp-Trp-Lys-
Cys-Gly-Ser-Gly-Lys-Pro-Ala-Cys-Cys-Pro-
Lys-Tyr-Val-Cys-Ser-Pro-Lys-Trp-Gly-Leu-
Cys-Asn-Phe-Pro-Met-Pro

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 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:

Li *et al* (2013) The role of voltage-gated potassium channels K_v2.1 and K_v2.2 in the regulation of Ins and somatostatin release from pancreatic islets. *J.Pharmacol.Exp.Ther.* **344** 407. PMID: 23161216.

Herrington (2007) Gating modifier peptides as probes of pancreatic beta-cell physiology. *Toxicon* **49** 231. PMID: 17101164.

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