Certificate of Analysis

www.tocris.com

Print Date: Jun 23rd 2023

Product Name: α-Bungarotoxin CAS Number: 11032-79-4

> **Batch Molecular Formula: Batch Molecular Weight: Physical Appearance:**

1. PHYSICAL AND CHEMICAL PROPERTIES

Catalog No.: 2133 Batch No.: 21 EC Number: 234-266-6

$C_{338}H_{529}N_{97}O_{105}S_{11}$
7984.14
lyophilised solid
Soluble in water
Store at -20°C
Ile-Val-Cys-His-Thr-Thr-Ala-Thr-Ser-Pro- Ile-Ser-Ala-Val-Thr-Cys-Pro-Pro-Gly-Glu- Asn-Leu-Cys-Tyr-Arg-Lys-Met-Trp-Cys-Asp- Ala-Phe-Cys-Ser-Ser-Arg-Gly-Lys-Val-Val-
Glu-Leu-Gly-Cys-Ala-Ala-Thr-Cys-Pro-Ser-
Lys-Lys-Pro-Tyr-Glu-Glu-Val-Thr-Cys-Cys-
Ser-Thr-Asp-Lys-Cys-Asn-Pro-His-Pro-Lys- GIn-Arg-Pro-Gly

2. ANALYTICAL DATA

HPLC: Mass Spectrum: Shows 99.2% purity Consistent with structure

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



Solubility: Storage:

Peptide Sequence:

biotechne TOCRIS

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Product Name: α-Bungarotoxin

CAS Number: 11032-79-4

Description:

α-Bungarotoxin is a neurotoxin that blocks neuromuscular transmission via irreversible inhibition of nicotinic ACh receptors (nAChRs). Prevents opening of nicotinic receptor-associated ion channels and is selective for α 7 receptors over α 3 β 4 receptors (IC₅₀ values are 1.6 nM and > 3 μ M respectively).

Physical and Chemical Properties:

Batch Molecular Formula: C338H529N97O105S11 Batch Molecular Weight: 7984.14 Physical Appearance: lyophilised solid

Peptide Sequence:

Ile-Val-Cys-His-Thr-Thr-Ala-Thr-Ser-Pro-
IIe-Ser-Ala-Val-Thr-Cys-Pro-Pro-Gly-Glu-
Asn-Leu-Cys-Tyr-Arg-Lys-Met-Trp-Cys-Asp-
Ala-Phe-Cys-Ser-Ser-Arg-Gly-Lys-Val-Val-
Glu-Leu-Gly-Cys-Ala-Ala-Thr-Cys-Pro-Ser-
Lys-Lys-Pro-Tyr-Glu-Glu-Val-Thr-Cys-Cys-
Ser-Thr-Asp-Lys-Cys-Asn-Pro-His-Pro-Lys- GIn-Arg-Pro-Gly

Catalog No.: 2133 EC Number: 234-266-6

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Storage: Store at -20°C

Solubility & Usage Info:

Soluble 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.

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:

Lopez et al (1998) Unmasking the functions of the chromaffin cell α_7 nicotinic receptor by using short pulses of acetylcholine and selective blockers. Proc.Natl.Acad.Sci.USA 95 14184.

Zhang et al (1994) Neuronal acetylcholine receptors that bind α -bungarotoxin with high affinity function as ligand-gated ion channels. Neuron 12 167. PMID: 7507338.

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