Alpha-like toxin Bom4, recombinant venom peptide (*Buthus occitanus mardochei*)

Catalogue number: VP0006, 0.1 mg
(0.5 mL at 0.2 mg/mL)

Description

Alpha-like toxin Bom4 venom peptide is a recombinant peptide purified from *Escherichia coli* that was originally isolated from the venom of *Buthus occitanus mardochei* (Moroccan scorpion). Bom4 toxin binds voltage-independently sodium channels (Nav) and inhibits sodium channels inactivation, thereby blocking neuronal transmission. This alpha-like toxin was described as highly toxic to mice and insects. The recombinant peptide is provided in 50 mM NaHepes buffer, pH 7.5, 300 mM NaCl, at a 0.2 mg/mL concentration.

Purity

Alpha-like toxin Bom4 venom peptide is produced recombinantly and subjected to a variety of highly stringent purification protocols to reach a degree of purity > 90%, as evaluated by SDS-PAGE and ESI-Q-ToF-MS.

Recombinant Peptide sequence

GRDAYIAQPENCVYECAKNSYCNDLCTKNGAKSGYCQWLGKYGNACWC
EDLPDNVPIRIPGKCHF

Specifications

Peptide Length	65 aa
Molecular weight	7296 Da
Number of Cys	8
Disulfide bonds	Cys^{12}-Cys^{63}, Cys^{16}-Cys^{36}, Cys^{22}-Cys^{46}, Cys^{26}-Cys^{48}
Source	Recombinant peptide from *Buthus occitanus mardochei*
Format provided	Liquid
Uniprot Access	P59354
PDB Code	Not available

Storage Temperature

Alpha-like toxin Bom4 venom peptide should be stored at 4°C and is stable for 12 months.

Reference

Biological and biochemical properties of this peptide are describe in Cestele,S. *et al*., Eur. J. Neurosci. 11 (3), 975-985 (1999).

Quality Control Assays

Purity

Recombinant Alpha-like toxin Bom4 venom peptide is >90% pure as judged by SDS polyacrylamide gel electrophoresis followed by BlueSafe staining (MB15201).

Molecular weight determination

To confirm molecular weight, oxidation pattern, molecular integrity and degree of purification, the recombinant peptide was analysed through ElectroSpray Ionization Quadrupole Time-of-Flight Mass Spectrometry (ESI-Q-ToF-MS) using a Synapt G2 HDMS (Waters) instrument. The resulted mass spectra was deconvoluted using MassLynx software and the obtained mass was compared with the theoretical peptide mass considering that all cysteine residues are oxidized.

V1901

Certificate of Analysis

Test	Result
Peptide purity	Pass

Approved by:

Patrícia Ponte
Senior Manager, Quality Systems

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