Kaliotoxin-1 recombinant, expressed in *E. coli*

Catalog Number K3764

Storage Temperature −20 °C

CAS RN: 150769-72-5

Synonym: 1KTX scorpion toxin

**Product Description**

Kaliotoxin-1, recombinant, is a peptide with the sequence GVEINVKCSG SPQCLKPCKD AGMRFKCMN RKCHCTP, expressed in and extracted from *E. coli* and purified to homogeneity. The peptide concentration and identification were determined by amino acid analysis.

Kaliotoxin-1 was originally isolated, identified and synthesized as a 37 amino acid peptide. Later the authors further analyzed the toxin, and came to the conclusion that the toxin is 38 amino acids, having an additional Lys at the C-terminal, but with biological activity very similar to the 37 amino acid toxin. Kaliotoxin-1, recombinant is the highly purified 37 amino acid version. Its activity was compared to the 38 amino acid version, and found to have identical biological properties.

Kaliotoxin-1 was originally isolated from the venom of the scorpion *Androctonus mauretanicus maureta nicus*. It belongs to the α-KTX-3.1 scorpion toxin family, having three disulfide bridges. Kaliotoxin-1 is a potent inhibitor of large conductance Ca²⁺-activated K⁺-channels (Kᵥ1.1), and blocks voltage-dependent K⁺-channels, mainly Kᵥ1.1, Kᵥ1.2 and Kᵥ1.3.

**Reagent**

Supplied as a lyophilized powder of unbuffered protein.

**Precautions and Disclaimer**

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

**Preparation Instructions**

Dissolve 1 µg in 0.24 ml of any conventional buffer for a stock solution of 1µM.

**Storage/Stability**

Lyophilized powder and reconstituted solution should be stored at −20 °C or below. Repeated freezing and thawing, or storage in “frost-free” freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

**Product Profile**

Application of 250 nM Kaliotoxin-1, recombinant, causes reversible inhibition of Kᵥ1.3 channels expressed in *Xenopus* oocytes.

**References**


MCT,PHC 10/05-1

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