Product datasheet

Heteropodatoxin-2 (HpTX2), \( K_{\text{v}4.3} \) voltage-gated \( K^+ \) channel blocker ab141874

Overview

Product name  Heteropodatoxin-2 (HpTX2), \( K_{\text{v}4.3} \) voltage-gated \( K^+ \) channel blocker
Description  Specific \( K_{\text{v}4.3} \) voltage-gated \( K^+ \) channel blocker
Biological description  Specific \( K_{\text{v}4.3} \) voltage-gated \( K^+ \) channel blocker. Peptide toxin. Acts as a gating modifier of the \( K_{\text{v}4.1} \) channel. Lacks affinity for \( K_{\text{v}1.4} \), \( K_{\text{v}2.1} \), and \( K_{\text{v}3.4} \) channels.
Purity  > 98%
Chemical structure  

\[
\text{Asp-Asp-Cys-Gly-Lys-Leu-Phe-Ser-Gly-Cys-Asp-Thr} \\
\text{Asp-Ala-Asp-Cys-Glu-Gly-Val-Gly-Phe-Thr} \\
\text{Trp-Cys-Lys-Leu-Asp-Trp-NH}_2 \\
\text{(Disulphide bridges: 3-17, 10-22 and 16-26)}
\]

Properties

Molecular weight  3413.00
Molecular formula  \( \text{C}_{144}\text{H}_{213}\text{N}_{39}\text{O}_{46}\text{S}_6 \)
Sequence  DDCGKLFSGCDTNADCEGYVCRRLWCKLDW (Modifications: C-terminal amide; Disulfide bonds: 3-17, 10-22, 16-26)
Storage instructions  Store at -20°C. Store under desiccating conditions. The product can be stored for up to 12 months.
Solubility overview  Soluble in water
Handling  Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one week. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.
Need more advice on solubility, usage and handling? Please visit our frequently asked questions (FAQ) page for more details.
Source  Heteropoda venatoria

Images
Heteropodatoxin-2 inhibits KV4.2 channel currents expressed in Xenopus oocytes. Currents were elicited by application of voltage step from a holding potential of -100 mV to 0 mV in 100 msec, delivered every 10 seconds. A. Time course of channel activity (current amplitude at +0 mV), before (black) and during (green) application of 100 nM Heteropodatoxin-2 (ab141874). B. Example of superimposed current traces before (black) and during (green) application of 100 nM Heteropodatoxin-2, taken from the experiment in A.

Please note: All products are “FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES, NOT FOR USE IN HUMANS”

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors
- Abcam biochemicals are novel compounds and we have not tested their biological activity in house. Please use the literature to identify how to use these products effectively. If you require further assistance please contact the scientific support team