

Product datasheet

Phrixotoxin-2, K<sub>v4.2</sub> and K<sub>v4.3</sub> channel blocker ab141843

1 References 2 Images

Overview

<b>Product name</b>	Phrixotoxin-2, K <sub>v4.2</sub> and K <sub>v4.3</sub> channel blocker
<b>Description</b>	Potent, selective and reversible K <sub>v4.2</sub> and K <sub>v4.3</sub> channel blocker
<b>Biological description</b>	Potent, selective K <sub>v4.3</sub> and K <sub>v4.2</sub> potassium channel inhibitor (IC <sub>50</sub> values are 71 and 34 nM, respectively). Anticancer activity. Active <i>in vivo</i> .
<b>Purity</b>	> 98%
<b>CAS Number</b>	221889-63-0
<b>Chemical structure</b>	Tyr-Cys-Gln-Lys-Trp-Met-Trp-Thr-Cys-Asp-Glu-Glu-Arg-Lys-Cys-Cys-Glu-Gly-Leu-Val-Cys-Arg-Leu-Trp-Cys-Lys-Arg-Ile-Ile-Asn-Met-NH <sub>2</sub> (Disulfide bridges: 2-16, 9-21 and 15-25)

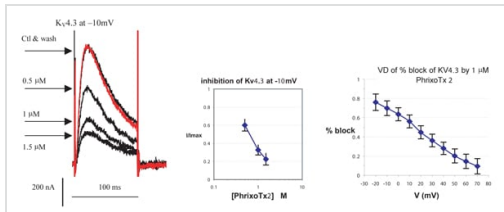
Properties

<b>Chemical name</b>	YCQKWMWTCDEERKCCCEGLVCRLWCKRIINM (Modifications: Met-31= C-terminal amide; Disulfide bridges: 2-16, 9-21 and 15-25)
<b>Molecular weight</b>	3923.00
<b>Molecular formula</b>	C <sub>169</sub> H <sub>259</sub> N <sub>49</sub> O <sub>43</sub> S <sub>8</sub>
<b>Storage instructions</b>	Store at -20°C. Store under desiccating conditions. The product can be stored for up to 12 months.
<b>Solubility overview</b>	Any aqueous buffer. Centrifuge all product preparations before use (10000 x g 5 min).
<b>Handling</b>	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 month. 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 <a href="#">frequently asked questions (FAQ) page</a> for more details.
<b>Source</b>	Synthetic

Images

Tyr-Cys-Gln-Lys-Trp-Met-Trp-Thr-Cys-Asp-Glu-Glu-Arg-Lys-Cys-Cys-Glu-Gly-Leu-Val-Cys-Arg-Leu-Trp-Cys-Lys-Arg-Ile-Ile-Asn-Met-NH<sub>2</sub>  
(Disulfide bridges: 2-16, 9-21 and 15-25)

Chemical Structure - Phrixotoxin-2, K<sub>v</sub>4.2 and K<sub>v</sub>4.3 channel blocker (ab141843)



Functional Studies - Phrixotoxin-2, K<sub>v</sub>4.2 and K<sub>v</sub>4.3 channel blocker (ab141843)

2D chemical structure image of ab141843, Phrixotoxin-2, Kv4.2 and Kv4.3 channel blocker

Phrixotoxin-2 inhibits KV4.3 currents expressed in *Xenopus* oocytes.

Expressed KV4.3 currents were recorded using two electrode voltage clamp with ND 96 in the bath solution. Left: Traces of current response to 100 ms depolarization from a holding potential of -100 mV to -10 mV, applied every 10 sec before, during and after wash of Phrixotoxin-2 (ab141843) at the indicated concentrations.

Middle: Mean and S.D. dose response curve for 3 experiments.

Right: Mean and S.D. voltage dependence of the percentage inhibition caused by 1 μM Phrixotoxin-2 (n = 3).

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

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