Product Datasheet

GaTx2

Product name : GaTx2	**Synonyms :**
Catalog # : 10GTX002	

Product description

GaTx2 (gating modifier of anion channels 2) was isolated from the venom of Leiurus quinquestriatus hebraeus. GaTx2 is the most potent peptide inhibitor of ClC-2 chloride channel ever described. K_d value is close to 20 pM. GaTx2 slows ClC-2 activation but without altering channel conductance. The effect is voltage-dependent. It has no effect on ClC-0, ClC-1, ClC-3, ClC-4, CFTR, $GABA_C$, Xenopus Cl_{Ca}, Shaker B or Kv1.2 channels. Structurally, GaTx2 is composed of two β-strands and one α-helix. This peptide is also called Leiuropeptide II. Bears 89, 93 and 96% identity with OdK1, neurotoxin P01 and leiuropeptide III, respectively.

Product specifications

AA sequence: Val-Ser-Cys^3-Glu-Asp-Cys^6-Pro-Asp-His-Cys^{10}-Ser-Thr-Gln-Lys-Ala-Arg-Ala-Lys-Cys^{19}-Asp-Asn-Asp-Lys-Cys^{24}-Val-Cys^{26}-Glu-Pro-Ile-OH
Disulfide bonds: Cys^3-Cys^{19}, Cys^6-Cys^{24}, and Cys^{10}-Cys^{26}
Length (aa): 29
Formula: $C_{185}H_{273}N_{49}O_{45}S_6$
Appearance: White lyophilized solid
Molecular Weight: 3191.25 Da
CAS number:
Source: Synthetic
Counterion: TFA salts
Solubility: Water or saline buffer, 5 mg/mL maximum (recommendation)

Formulation

Storage/Stability: Shipped at ambient temperature under lyophilized powder. Store at -20°C (-4°F). Do not freeze-thaw. Aliquot sample if required and store at -80°C (-112°F).
Expiry date: One year
Use restrictions: For laboratory use only. Not for drug, household or other uses. Not for use in diagnostic or therapeutic procedures.

Related products

- GaTx1: selective blocker of CFTR channel
- Chlorotoxin: blocker of chloride channels

References

- Thompson CH, *et al*. (2009) Isolation and characterization of a high affinity peptide inhibitor of ClC-2 chloride channels. *J Biol Chem*
- Eric Schiffhauer, et al. (2013) Dual activation of CFTR and CLCN2by lubiprostone in murine 4 nasal epithelia. *Am J Physiol Lung Cell Mol Physiol*

For laboratory research use only

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