Product Datasheet

Ugr 9-1

Product name: Ugr 9-1	**Synonyms :** π-AnmTX Ugr 9a-1
Catalog # : 13UGR001	

Product description

Ugr 9-1 (π-AnmTX Ugr 9a-1) was isolated from the venom of the sea anemone *Urticina grebelnyi.* Ugr 9-1 reversibly inhibits homomeric human ASIC3. Ugr9-1 fully inhibits transient currents with an IC_{50} value of around 10 µM and also partially blocks sustained currents (IC_{50} = 1.4 µM). The peculiarity of this peptide is its ability to block ASIC3 when activated at weak pH (pH 4.0). Ugr 9-1 does not block or activate ASIC1a, ASIC1b, ASIC2a and Kv1.3 at significant concentrations.
Ugr 9-1 significantly reverses inflammatory and acid-induced pain in-vivo in mice. The antinociceptive effect is attributed to the block of the sustained inward Na+ current in sensitive neurons.

Product specifications

AA sequence: Ile-Ser-Ile-Asp-Pro-Pro-Cys^{7}-Arg-Phe-Cys^{10}-Tyr-His-Arg-Asp-Gly-Ser-Gly-Asn-Cys^{19}-Val-Tyr-Asp-Ala-Tyr-Gly-Cys^{26}-Gly-Ala-Val-OH
Disulfide bonds: Cys^{7}-Cys^{19}, Cys^{10}-Cys^{26}
Length (aa): 29
Formula: $C_{134}H_{196}N_{38}O_{42}S_4$
Appearance: White lyophilized solid
Molecular Weight: 3135 Da
CAS number: NA
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

- **Psalmotoxin 1 - #13PCT001:** selective ASIC1a blocker
- **APETx2 - #07APE002:** ASIC3 selective blocker

References

- Osmakov D., *et al*. (2013) Sea anemone peptide with uncommon β -hairpin structure inhibits acid-sensing ion channel 3 (ASIC3) and reveals analgesic activity. *JBC*

For laboratory research use only

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