GsMTx4 TFA

Cat. No.: HY-P1410A

Molecular Formula: $C_{187}H_{280}N_{49}F_3O_{47}S_6$

Molecular Weight: 4215.91

Sequence Shortening: GCLEFWWKCNPNDDKCCRPKLKCSKLFKLCNFSF

GCLEFWWKCNPNDDKCCRPKLKCSKLFKLCNFSF-NH_2 (TFA salt)

Target: Others

Pathway: Others

Storage: Protect from light

Powder -80°C 2 years

-20°C 1 year

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)

SOLVENT & SOLUBILITY

In Vitro

DMSO : 10 mg/mL (2.37 mM; Need ultrasonic)

H_2O : < 0.1 mg/mL (ultrasonic) (insoluble)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	0.2372 mL	1.1860 mL	2.3720 mL
5 mM	---	---	---
10 mM	---	---	---

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

GsMTx4 TFA is a spider venom peptide that selectively inhibits cation-permeable mechanosensitive channels (MSCs) belonging to the Piezo and TRP channel families. GsMTx4 TFA is an important pharmacological tool for identifying the role of these excitatory MSCs in normal physiology and pathology[1]. GsMTx4 TFA significantly attenuates bladder hyperactivity[2].

IC_{50} & Target

MSCs[1]

CUSTOMER VALIDATION

- Hypertension. 2021 Sep;78(3):647-660.
- J Neurochem. 2021 Nov 10.
- J Gastroenterol Hepatol. 2021 Jun 24.

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REFERENCES

[1]. Gnanasambandam R, et al. GsMTx4: Mechanism of Inhibiting Mechanosensitive Ion Channels. Biophys J. 2017 Jan 10;112(1):31-45.

[2]. Liu Q, et al. Increased Piezo1 channel activity in interstitial Cajal-like cells induces bladder hyperactivity by functionally interacting with NCX1 in rats with cyclophosphamide-induced cystitis. Exp Mol Med. 2018 May 7;50(5):60.

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