

Product Name : GsMTx4
Cat. No. : PC-20552
CAS No. : 1209500-46-8
Molecular Formula : C₁₈₅H₂₇₃N₄₉O₄₅S₆
Molecular Weight : 4095.86
Target : TRP Channel
Solubility : 10 mM in DMSO

GCLEFWWKCNPNDDKCCRPKLKCSKLFKLCNFSF
(Modifications: Disulfide bridges: 2-17, 9-23, 16-30), Phe-34 = C-terminal ar

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Biological Activity

GsMTx4 is a spider venom peptide that selectively inhibits cationic mechanosensitive channels (MSCs) such as TRPC1 and TRPC6 and Piezo channels, also blocks cation-selective stretch-activated channels (SACs).

GsMTx4 attenuates lysophosphatidylcholine (LPC)-induced astrocyte toxicity and microglial reactivity.

GsMTx4 (5 μM) reduces Piezo1-mediated charge transfer to 38% of its initial levels in HEK293 cells transfected with Piezo1 cDNA.

GsMTx4 (5 μM) blocks cation-selective stretch-activated channels in astrocytes, cardiac cells, and smooth and skeletal muscle cells.

GsMTx4 also inhibits TACAN, a mechanosensitive ion channel involved in the pain response.

GsMTx4 is neuroprotective and inhibits lysophosphatidylcholine-induced astrocyte toxicity in vivo in mice.

References

Suchyna TM, et al. Nature. 2004 Jul 8;430(6996):235-40.

Suchyna TM, et al. J Gen Physiol. 2000 May;115(5):583-98.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

E-mail: tech@probechem.com