
Product Name	: GsMTx4	GCLEFWWKCNPNDDKCCRPKLKCSKLFKLCNFSF (Modifications: Disulfide bridges: 2-17, 9-23, 16-30), Phe-34 = C-terminal ar
Cat. No.	: PC-20552	
CAS No.	: 1209500-46-8	CAS: 1209500-46-8
Molecular Formula	: C ₁₈₅ H ₂₇₃ N ₄₉ O ₄₅ S ₆	
Molecular Weight	: 4095.86	
Target	: TRP Channel	
Solubility	: 10 mM in DMSO	

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!

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