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## DATASHEET

GsMTx4

### Product overview

<b>Name</b>	GsMTx4
<b>Cat No</b>	HB1161
<b>Alternative names</b>	M-TRTx-Gr1a, M-theraphotoxin-Gr1a
<b>Biological action</b>	Inhibitor
<b>Purity</b>	>95%
<b>Description</b>	Piezo and TRP mechanosensitive channels inhibitor

### Biological Data

**Biological description** Gating modifier peptide from spider venom which selectively inhibits mechanosensitive ion channels such as Piezo and TRP.

It is commonly used in the study mechanosensitive channels function in physiology and pathology.

It has also recently been reported to inhibit a stretch-activated BK channel (SAKcaC) and TACAN, a mechanosensitive ion channel involved in pain regulation.

### Solubility & Handling

<b>Storage instructions</b>	-20 °C
<b>Solubility overview</b>	Soluble in water (1mg/ml)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

### Chemical Data

<b>Chemical name</b>	H-Gly-DL-Cys(1)-DL-Leu-DL-Glu-DL-Phe-DL-Trp-DL-Trp-DL-Lys-DL-Cys(2)-DL-Asn-DL-Pro-DL-Asn-DL-Asp-DL-Asp-DL-Lys-DL-Cys(3)-DL-Cys(1)-DL-Arg-DL-Pro-DL-Lys-DL-Leu-DL-Lys-DL-Cys(2)-DL-Ser-DL-Lys-DL-Leu-DL-Phe-DL-Lys-DL-Leu-DL-Cys(3)-DL-Asn-DL-Phe-DL-Ser-DL-Phe-NH <sub>2</sub>
<b>Molecular Weight</b>	4095.86
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>185</sub> H <sub>273</sub> N <sub>49</sub> O <sub>45</sub> S <sub>6</sub>
<b>CAS Number</b>	1209500-46-8
<b>PubChem identifier</b>	90488987
<b>SMILES</b>	[H]NCC(=O)N[C@@H]1CSSC[C@@H]2NC(=O)[C@@H]3CSSC[C@@H](NC(=O)[C@@H](CC(C)C)NC(=O)[C@@H](CCCCN)NC(=O)[C@@H](CC4=CC=CC=C4)NC(=O)[C@@H](CC(C)C)NC(=O)[C@@H](CCCCN)NC(=O)[C@@H](CO)NC(=O)[C@@H](CSC[C@@H](NC(=O)[C@@H](CCCCN)NC(=O)[C@@H](CC4=CNC5=C4C=CC=C5)NC(=O)[C@@H](CC4=CC=CC=C4)NC(=O)[C@@H](CCC(O)=O)NC(=O)[C@@H](CC(C)C)NC1=O)C(=O)N[C@@H](CC(N)=O)C(=O)N1CCC[C@@H]1C(=O)N[C@@H](CC(N)=O)C(=O)N[C@@H](CC(O)=O)C(=O)N[C@@H](CC(O)=O)C(=O)N[C@@H](CCCCN)C(=O)N3)NC(=O)[C@@H](CCCCN)NC(=O)[C@@H](CC(C)C)NC(=O)[C@@H](CCCCN)NC(=O)[C@@H]1CCCC1C(=O)[C@@H](CCNC(N)=N)NC2=O)C(=O)N[C@@H](CC(N)=O)C(=O)N[C@@H](CC1=CC=CC=C1)C(=O)N[C@@H](CO)C(=O)N[C@@H](CC1=CC=CC=C1)C(N)=O
<b>InChiKey</b>	WVDNTWXIIKNMHY-UHFFFAOYSA-N

## References

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### **GsMTx4: Mechanism of Inhibiting Mechanosensitive Ion Channels**

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