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DATASHEET

ω -Agatoxin TK

Product overview

Name	ω -Agatoxin TK
Cat No	HB1213
Alternative names	Agatoxin IVB
Biological action	Blocker
Description	Potent, selective P-type / Q-type Ca^{2+} channel blocker

Biological Data

Biological description	Potent and selective P/Q-type Ca^{2+} channel blocker ($\text{IC}_{50} = 127 \text{ nM}$ for Q type channels). Displays little or no activity at L-type Ca^{2+} channels. Found in the venom of the funnel web spider <i>Agelenopsis aperta</i> .
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Solubility & Handling

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

Chemical Data

Molecular Weight	5273.02
Chemical structure	
Molecular Formula	$\text{C}_{215}\text{H}_{337}\text{N}_{65}\text{O}_{70}\text{S}_{10}$
CAS Number	158484-42-5
PubChem identifier	90488781
SMILES	[H]N[C@@H](CCC(O)=O)C(=O)N[C@@H](CC(O)=O)C(=O)N[C@@H](CC(N)=O)C(=O)N[C@@H]1C SSC[C@@H]2NC(=O)[C@@H]3C SSC[C@@H](NC(=O)[C@@H](CCC(O)=O)NC(=O)[C@@H]4C SSC[C@@H](NC(=O)[C@@H](CCCNC(N)=N)NC(=O)[C@@H](C SSC[C@@H](NC(=O)[C@@H](CCCCN)NC(=O)C NC(=O)[C@@H](CC5=CC=C(O)C=C5)NC(=O)[C@@H](CC(O)=O)NC(=O)[C@@H](CCC(O)=O)NC(=O)[C@@H](C)NC(=O)[C@@H](NC1=O)[C@@H](C)CC)C(=O)N[C@@H]([C@@H](C)O)C(=O)N[C@@H](CC1=CNC5=C1C=CC=C5)C(=O)NCC(=O)NCC(=O)N[C@@H]([C@@H](C)O)C(=O)N[C@@H](CC CCN)C(=O)N3NC(=O)[C@@H]1CCCN1C(=O)[C@@H](CCCNC(N)=N)NC(=O)CNC(=O)[C@@H](CCC NC(N)=N)NC2=O)C(=O)N[C@@H](CO)C(=O)N[C@@H](CCSC)C(=O)N[C@@H]([C@@H](C)CC) C(=O)NCC(=O)N[C@@H]([C@@H](C)O)C(=O)N[C@@H](CC(N)=O)C(=O)N4C(=O)N[C@@H]([C@@H](C)O)C(=O)N1CCC[C@@H]1C(=O)N[C@@H](CCCNC(N)=N)C(=O)N[C@@H](CC(C)C)C(=O) N[C@@H]([C@@H](C)CC)C(=O)N[C@@H](CCSC)C(=O)N[C@@H](CCC(O)=O)C(=O)NCC(=O)N[C@@H](CC(C)C)C(=O)N[C@@H](CO)C(=O)N[C@@H](CC1=CC=CC=C1)C(=O)N[C@@H](C)C(O)=O
InChiKey	MBXCGHHUBOKUGG-UHFFFAOYSA-N

References

Omega-agatoxin-TK containing D-serine at position 46, but not synthetic omega-[L-Ser46]agatoxin-TK, exerts blockade of P-

type calcium channels in cerebellar Purkinje neurons.

Kuwada M *et al* (1994) Mol Pharmacol 46(4)

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High-affinity inhibition of glutamate release from corticostriatal synapses by omega-agatoxin TK.

Barral J *et al* (2001) Eur J Pharmacol 430(2-3)

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A novel type of calcium channel sensitive to omega-agatoxin-TK in cultured rat cerebral cortical neurons.

Teramoto T *et al* (1997) Brain Res 756(1-2)

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