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DATASHEET

Iberitoxin

Product overview

Name	Iberitoxin
Cat No	HB1053
Biological action	Inhibitor
Purity	>95%
Description	Potent, reversible, selective K_{Ca} channel inhibitor

Images



Biological Data

Biological description	Potent, reversible and selective K_{Ca} channel inhibitor (approx $IC_{50} = 250$ pM). Found in venom of <i>Buthus tamulus</i> scorpion.
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Solubility & Handling

Storage instructions	-20°C (desiccate)
Solubility overview	Soluble in water (0.7mg/ml)
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	4230.9
Chemical structure	
Molecular Formula	$C_{179}H_{276}N_{50}O_{56}S_7$
CAS Number	129203-60-7
PubChem identifier	16132435
SMILES	<chem>CC(C)CC1C(=O)NC(C(=O)NCC(=O)NC(C(=O)NC(C(=O)NC(C(=O)NCC(=O)NC(C(=O)NC(CSSCC(C(=O)NC(C(=O)NC(C(=O)N1)CC(=O)O)CCCCN)NC(=O)C(C(C)C)NC(=O)C(CO)NC(=O)C(CC2=CC=CC=CC=C3)NC(=O)C4C5SSCC(C(=O)NC(C(=O)NC(C(=O)NC(C(=O)NC(C(=O)N4)CCC(=O)O)CCCCN)CO)C(C)C)CO)NC(=O)C(CC(=O)O)NC(=O)C(C(C)C)NC(=O)C(CC(=O)O)NC(=O)C(C(C)O)NC(=O)C(CC5=CC=CC=C5)NC(=O)C6CCCC(=O)N6)C(=O)NC(CCSC)C(=O)NCC(=O)NC(C(C)C)C(=O)NC(C(C)C)C(=O)NC7C5SSCC(NC(=O)C(NC7=O)CCCNC(=N)N)C(=O)NC(CC8=</chem>

CC=C(C=C8)O)C(=O)NC(CCC(=O)N)C(=O)O)CCCCN)CCCNC(=N)N)CC(=O)O)C(C)C)CC9=CC=C
C=C9

Source

Mesobuthus tamulus

InChi

InChi=1S/C179H274N50O55S7/c1-87(2)65-111-155(261)208-112(66-93-33-15-13-16-34-93)146(25
2)195-77-133(239)225-139(88(3)4)172(278)213-117(71-136(244)245)158(264)199-100(44-31-62-1
90-178(186)187)144(250)193-75-131(237)198-102(40-22-27-58-181)148(254)219-124(1

InChiKey

VDNVVLOBNHIMQA-UHFFFAOYSA-N

References

Purification and characterization of a unique, potent, peptidyl probe for the high conductance calcium-activated potassium channel from venom of the scorpion *Buthus tamulus*.

Galvez A *et al* (1990) J Biol Chem 265(19)

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A neuronal beta subunit (KCNMB4) makes the large conductance, voltage- and Ca²⁺-activated K⁺ channel resistant to charybdotoxin and iberiotoxin.

Meera P *et al* (2000) Proc Natl Acad Sci U S A 97(10)

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Mode of action of iberiotoxin, a potent blocker of the large conductance Ca(2+)-activated K+ channel.

Candia S *et al* (1992) Biophys J 63(2)

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