Helospectin I

Cat. No.:	HY-P3053
CAS No.:	93438-37-0
Molecular Formula:	$C_{183}H_{293}N_{47}O_{59}$
Molecular Weight:	4095.63
Sequence Shortening:	HSDATFTAEYSKLLAKLALQKYLESILGSSTSPRPPSS
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Helospectin I is a neuropeptide of the vasoactive intestinal peptide (VIP) family. Helospectin I has vasodilatory and antihypertensive activities, and decreases blood pressure. Helospectin I is originally isolated from the salivary gland venom of the lizard Heloderma suspectum[1][2].
IC_{50} & Target	Vasoactive intestinal peptide (VIP)[1]
In Vitro	Helospectin I (suffusion at 0.1 nM, in bicarbonate buffer for 30 min) evokes significant, sustained and similar vasodilation in the intact hamster cheek pouch[1]. Helospectin I relaxes the Phenylephrine-contracted rat femoral arteries with pEC_{50} of 6.82[2]. Helospectin I (0.1 nM-1 μM) inhibits the binding of 125I-labeled VIP and 125I-secretin to dispersed chief cells[4]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Helospectin I (0.03-2 nmol/kg, 100 μL of infusion at the left jugular vein) reduces blood pressure in rats[2]. Helospectin I (0.1-0.8 nmol /kg, i.v.) increases plasma levels of glucagon in mice[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	SD rats[2]
Dosage:	0.03, 0.3, 1, 2 nM/kg
Administration:	100 μL of infusion at the left jugular vein, followed by washing the catheter with 100 μL saline.
Result:	Reduced the blood pressure, but was less effective than vasoactive intestinal peptide (VIP) in the low dose range.

Animal Model:	Mice[3]
Dosage:	0.1, 0.2, 0.4, 0.8 nM /kg
Administration:	Intravenous injection (i.v.)

Result:	Markedly stimulated glucagon secretion, and had no direct action on insulin secretion.

REFERENCES

[1]. Tsueshita T, et al. Helospectin I and II evoke vasodilation in the intact peripheral microcirculation. Peptides. 2004 Jan;25(1):65-9.

[2]. Grundemar L, et al. Vascular effects of helodermin, helospectin I and helospectin II: a comparison with vasoactive intestinal peptide (VIP). Br J Pharmacol. 1990 Mar;99(3):526-8.

[3]. Ahrén B. Effects of helospectin I on insulin and glucagon secretion in the mouse. Br J Pharmacol. 1991 Apr;102(4):916-8.

[4]. Rai A, et al. Actions of Helodermatidae venom peptides and mammalian glucagon-like peptides on gastric chief cells. Am J Physiol. 1993 Jul;265(1 Pt 1):G118-25.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA