Phyllomedusin

Cat. No.:	HY-P3092
CAS No.:	26145-48-2
Molecular Formula:	$C_{52}H_{82}N_{16}O_{13}S$
Molecular Weight:	1171.37
Sequence Shortening:	{Pyr}-NPNRFIGLM-NH2
Target:	Neurokinin Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Phyllomedusin, an tachykinin decapeptide, is a NK1 receptor agonist. Phyllomedusin has vasodilating activity and provokes the contraction of the pylorus[1][2][3].
IC_{50} & Target	NK1
In Vitro	Phyllomedusin increases neuronal excitation with psychoactive and behavioral responses[4]. Phyllomedusin can cause smooth muscle contraction and vasodilatation[4]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Phyllomedusin (30-300 μg/kg, i.p.) delays gastric emptying in conscious rats[2]. Phyllomedusin (0.1 and 5 μg/kg, i.v.) has stimulant activity on the stomach of the anaesthetized rat[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Conscious rats[2].
Dosage:	30, 100, 300 μg/kg
Administration:	Intraperitoneal injection (i.p.)
Result:	Caused 75% delay in gastric emptying in conscious rats.

REFERENCES

[1]. Ganjiwale AD, et al. Three-dimensional structure of Phyllomedusin, a NK1 receptor agonist bound to dodecylphosphocholine micelles. J Struct Biol. 2009 Aug;167(2):176-84.

[2]. Bertaccini G, et al. Effect of substance P and its natural analogues on gastric emptying of the conscious rat. Br J Pharmacol. 1981 Feb;72(2):221-3.

[3]. Bertaccini G, et al. Action of some natural peptides on the stomach of the anaesthetized rat. Naunyn Schmiedebergs Arch Pharmacol. 1977 Jun;298(2):163-6.

[4]. Sacco MA, et al. Kambo: Natural drug or potential toxic agent? A literature review of acute poisoning cases. Toxicol Rep. 2022 Apr 15;9:905-913.

Caution: Product has not been fully validated for medical applications. For research use only.

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