Mastoparan

Cat. No.: HY-P0246

CAS No.: 72093-21-1

Molecular Formula: $C_{70}H_{131}N_{19}O_{15}$

Molecular Weight: 1478.91

Sequence: Ile-Asn-Leu-Lys-Ala-Leu-Ala-Ala-Leu-Ala-Lys-Lys-Ile-Leu-NH2

Sequence Shortening: INLKALAALAKKIL-NH2

Target: Others

Pathway: Others

Storage: Sealed storage, away from moisture
Powder -80°C 2 years
-20°C 1 year
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

INLKALAALAKKIL-NH_2

SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (67.62 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	0.6762 mL	3.3809 mL	6.7617 mL
	5 mM	0.1352 mL	0.6762 mL	1.3523 mL
	10 mM	0.0676 mL	0.3381 mL	0.6762 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Mastoparan, a tetradecapeptide which is a component of wasp venom, stimulates release of prolactin from cultured rat anterior pituitary cells.

In Vitro

Mastoparan has an amphiphilic nature and is reported to exert a variety of pharmacological and biochemical effects. Mastoparan induces exocytosis of hormones from anterior pituitary cells. Mastoparan stimulation of prolactin secretion is dose-dependent, time-dependent, reversible and required the presence of calcium. Mastoparan causes translocation of protein kinase C activity from a soluble to a membrane-attached form. Mastoparan is able to increase the intracellular Ca^{2+} concentration in Fura-2-loaded individual lactotrophs. Mastoparan is also able to interact with GTP-bindmg proteins. Thus, Mastoparan has been shown to facilitate exchange of nucleotides and to stimulate GTPase activity on G-proteins. It has therefore been proposed that the cellular effects of Mastoparan are due to an ability to mimic G-protein-linked agonist-liganded receptors[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Mau SE, et al. Mastoparan, a wasp venom peptide, stimulates release of prolactin from cultured rat anterior pituitary cells. J Endocrinol. 1994 Jul;142(1):9-18.

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