LKT Laboratories, Inc.

Mastoparan X

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Product Information

Product ID M0173
CAS No. 72093-22-2
Chemical Name

H-Ile-Asn-Trp-Lys-Gly-Ile-Ala-Ala-Met-Ala-Lys-Lys-Leu-Leu-NH_2

Synonym Mast cell degranulating peptide (Vespa xanthoptera) (9CI)

Formula $C_{73}H_{126}N_{20}O_{15}S$
Formula Wt. 1556.01
Melting Point
Purity ≥95%
Solubility Soluble in water (1 mg/mL).

Bulk quanitites available upon request

Product ID	Size
M0173	1 mg
M0173	2 mg
M0173	5 mg

Store Temp -20°C
Ship Temp Ambient
Description Mastoparan X is an antimicrobial/antibacterial peptide (AMP) derived from the venom of bees and wasps. Mastoparan X activates mast cells through binding and activation of the Gα subunit of GPCRs. Mastoparan X enters into neutral and negatively charged membranes, causing formation and leakage of giant unilamellar vesicles and inducing barrier disruptions.

References

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Cabrera MP, Alvares DS, Leite NB, et al. New insight into the mechanism of action of wasp mastoparan peptides: lytic activity and clustering observed with giant vesicles. Langmuir. 2011 Sep 6;27(17):10805-13. PMID: 21797216.

Etzerodt T, Henriksen JR, Rasmussen P, et al. Selective acylation enhances membrane charge sensitivity of the antimicrobial peptide mastoparan-x. Biophys J. 2011 Jan 19;100(2):399-409. PMID: 21244836.

Todokoro Y, Yumen I, Fukushima K, et al. Structure of tightly membrane-bound mastoparan-X, a G-protein-activating peptide, determined by solid-state NMR. Biophys J. 2006 Aug 15;91(4):1368-79. PMID: 16714348.