LKT Laboratories, Inc.

Mastoparan

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Product Information

Product ID M0172
CAS No. 72093-21-1
Chemical Name

Synonym Mast cell degranulating peptide (Vespula lewisii)

Formula $C_{70}H_{131}N_{19}O_{15}$
Formula Wt. 1478.92
Melting Point
Purity ≥95%
Solubility Soluble in acetic acid (1 mg/mL).

Ile-Asn-Leu-Lys-Ala-Leu-Ala-Ala-Leu-Ala-Lys-Lys-Ile-Leu-NH_2

Bulk quanitites available upon request

Product ID	Size
M0172	1 mg

Store Temp -20°C
Ship Temp Ambient
Description Mastoparan is an antimicrobial peptide (AMP) toxin originally found in wasp venom. Mastoparan increases GTPase activity and GTP binding, resulting in increases in Ca2+ influx. Mastoparan increases permeability of various cells; it induces degranulation and histamine release in mast cells. Additionally, this peptide inhibits production of TGF-ß1 in vivo.

References

Brophy TM, Coller BS, Ahamed J. Identification of the thiol isomerase-binding peptide, mastoparan, as a novel inhibitor of shear-induced transforming growth factor ß1 (TGF-ß1) activation. J Biol Chem. 2013 Apr 12;288(15):10628-39. PMID: 23463512.

Nakao S, Komagoe K, Inoue T, et al. Comparative study of the membrane-permeabilizing activities of mastoparans and related histamine-releasing agents in bacteria, erythrocytes, and mast cells. Biochim Biophys Acta. 2011 Jan;1808(1):490-7. PMID: 20955685.

Higashijima T, Uzu S, Nakajima T, et al. Mastoparan, a peptide toxin from wasp venom, mimics receptors by activating GTP-binding regulatory proteins (G proteins). J Biol Chem. 1988 May 15;263(14):6491-4. PMID: 3129426.