



>>Entry Name: Melittin

Synonym(s): Melittin 1. Forapin

CAS Registry Number: 20449-79-0

H-Gly-Ile-Gly-Ala-Val-Leu-Lys-Val-Leu-Thr-Thr-Gly-Leu-Pro-Ala-Leu-Ile-Ser-Trp-Ile-Lys-Arg-Lys-Arg-Gln-Gln-NH₂

Molecular Formula: C₁₃₁H₂₂₉N₃₉O₃₁

Molecular Weight: 2846.493

Accurate Mass: 2844.754176

Percentage Composition: C 55.28%; H 8.11%; N 19.19%; O 17.42%

Biological Source: Toxic polypeptide from bee venom (*Apis* spp.)

Biological Use/Importance: Shows powerful haemolytic activity and antimicrobial props. Antirheumatic agent

Optical Rotation: $[\alpha]_D^{21} -89.52$

Solubility: BERDY SOL: Sol. H₂O

Hazard & Toxicity: BERDY HAZD : LD₅₀ (mus, ivn) 4 mg/kg

Fluka: 63650

References:

- Jentsch, J., *Z. Naturforsch., B*, 1969, **24**, 415; 597, (*struct*)
Hartert, P. *et al.*, *Hoppe Seyler's Z. Physiol. Chem.*, 1975, **356**, 693, (*isol*)
Terwilliger, T.C. *et al.*, *J. Biol. Chem.*, 1982, **257**, 6010; 6016, (*cryst struct, conformn*)
Tosteson, M.T. *et al.*, *Biochemistry*, 1987, **26**, 6627, (*synth, hplc*)
Raeder, K. *et al.*, *J. Chromatogr.*, 1987, **408**, 341, (*hplc*)
Bazzo, R. *et al.*, *Eur. J. Biochem.*, 1988, **173**, 139, (*pmr, conformn*)
Dempsey, C.E., *Biochim. Biophys. Acta*, 1990, **1031**, 143, (*rev, biochem*)
Juvvadi, P. *et al.*, *J.A.C.S.*, 1996, **118**, 8989, (*synth*)