

Magainin 1 TFA

Cat. No.:	HY-P0269A
Molecular Formula:	C ₁₁₄ H ₁₇₈ N ₂₉ F ₃ O ₃₀ S
Molecular Weight:	2523.87
Sequence:	Gly-Ile-Gly-Lys-Phe-Leu-His-Ser-Ala-Gly-Lys-Phe-Gly-Lys-Ala-Phe-Val-Gly-Glu-Ile-Met-Lys-Ser
Sequence Shortening:	GIGKFLHSAGKFGKAFVGEIMKS
Target:	Bacterial; Fungal; Antibiotic
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Magainin 1 TFA (Magainin I TFA) is an antimicrobial and amphipathic peptide isolated from the skin of <i>Xenopus laevis</i> . Magainin 1 TFA exhibits antibiotic activity against numerous Gram-negative and Gram-positive bacteria ^{[1][2][3]} .
In Vitro	Magainin 1 interacts with acidic lipids through electrostatic interactions followed by hydrophobic interactions to form an amphiphilic helix, inducing the leakage. Magainin 1 induces the leakage of calcein specifically out of negatively-charged vesicles. The peptide binds to bovine brain phosphatidylserine sonicated vesicles according to the Langmuir isotherm with a binding constant of 3.8×10^5 M ⁻¹ and a binding-site number of 0.10 per lipid molecule ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Duclouhier H, et al. Antimicrobial peptide magainin I from *Xenopus* skin forms anion-permeable channels in planar lipid bilayers. *Biophys J*. 1989 Nov;56(5):1017-21.
- [2]. Matsuzaki K, et al. Magainin 1-induced leakage of entrapped calcein out of negatively-charged lipid vesicles. *Biochim Biophys Acta*. 1989 May 19;981(1):130-4.
- [3]. Zasloff M, et al. Magainins, a class of antimicrobial peptides from *Xenopus* skin: isolation, characterization of two active forms, and partial cDNA sequence of a precursor. *Proc Natl Acad Sci U S A*. 1987 Aug;84(15):5449-53.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA