

PRODUCT INFORMATION



Magainin 1 (trifluoroacetate salt)

Item No. 35651

Formal Name:	glycyl-L-isoleucylglycyl-L-lysyl-L-phenylalanyl-L-leucyl-L-histidyl-L-seryl-L-alanylglycyl-L-lysyl-L-phenylalanylglycyl-L-lysyl-L-alanyl-L-phenylalanyl-L-valylglycyl-L- α -glutamyl-L-isoleucyl-L-methionyl-L-lysyl-L-serine, trifluoroacetate salt	H—Gly—Ile—Gly—Lys—Phe—Leu—His—Ser—Ala—Gly— Lys—Phe—Gly—Lys—Ala—Phe—Val—Gly—Glu—Ile— Met—Lys—Ser—OH • XCF ₃ COOH
Synonym:	MG1	
Peptide Sequence:	GIGKFLHSAGKFGKAFVGEIMKS-OH	
MF:	C ₁₁₂ H ₁₇₇ N ₂₉ O ₂₈ S • XCF ₃ COOH	
FW:	2,409.9	
Purity:	≥95%	
Supplied as:	A crystalline solid	
Storage:	-20°C	
Stability:	≥4 years	
Item Origin:	Synthetic	

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Magainin 1 (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the magainin 1 (trifluoroacetate salt) in water. We do not recommend storing the aqueous solution for more than one day.

Description

Magainin 1 is a cationic peptide originally isolated from the skin of the African clawed frog (*X. laevis*) with roles in host defense and antimicrobial activity.¹ It reduces germination percentage and mean tube elongation in kiwi fruit pollen (EC₅₀s = 14 and 15.8 μ M, respectively).² Magainin 1 decreases viral replication in Vero cells infected with herpes simplex virus 1 (HSV-1) or HSV-2 (EC₅₀s = 36.59 and 33.2 μ M, respectively) without affecting cell viability (CC₅₀ = >100 μ M).³ It induces apoptosis in HL-60 cells when used at concentrations of 10 and 50 μ M and hemolysis in isolated human erythrocytes at 50 μ M.⁴ Magainin 1 (10 and 50 μ M) induces DNA fragmentation in HL-60 cells in a reporter assay.

References

1. Nascimento, J.M., Franco, O.L., Oliveira, M.D., *et al.* Evaluation of magainin I interactions with lipid membranes: An optical and electrochemical study. *Chem. Phys. Lipids* **165**(5), 537-544 (2012).
2. Speranza, A.M., Taddei, A.R., and Ovidi, E. *In vitro* toxicity towards kiwifruit pollen of the antimicrobial peptides magainins 1 and 2. *Plant Biol. (Stuttg.)* **9**(6), 800-806 (2007).
3. Albiol Matanic, V.C. and Castilla, V. Antiviral activity of antimicrobial cationic peptides against Junin virus and herpes simplex virus. *Int. J. Antimicrob. Agents* **23**(4), 382-389 (2004).
4. Cruz-Chamorro, L., Puertollano, M.A., Puertollano, E., *et al.* In vitro biological activities of magainin alone or in combination with nisin. *Peptides* **27**(6), 1201-1209 (2006).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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