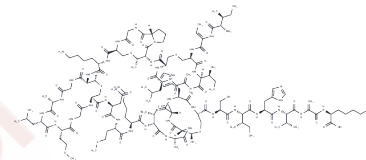


## Nisin

## Chemical Properties

CAS No. :	1414-45-5
Formula:	C143H230N42O37S7
Molecular Weight:	3354.07
Storage:	Keep away from moisture Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	Nisin A is an antibacterial peptide. It is produced by the lactic acid bacterium <i>L. lactis</i> using uncommon amino acids, including lanthionine, and is a member of the class of antibiotics referred to as lantibiotics.
Targets(IC50)	Antibacterial, Antibiotic
In vitro	Nisin, a Type A (I) lantibiotic synthesized from mRNA, undergoes post-translational modifications yielding a peptide with unique amino acids. This antimicrobial peptide, produced by specific Gram-positive bacteria such as <i>Lactococcus</i> and <i>Streptococcus</i> species[1], exhibits potent activity against various microorganisms.

## Solubility Information

Solubility	H <sub>2</sub> O: < 0.1 mg/mL (insoluble), DMSO: 1 mg/mL (0.3 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.2981 mL	1.4907 mL	2.9815 mL
5 mM	0.0596 mL	0.2981 mL	0.5963 mL
10 mM	0.0298 mL	0.1491 mL	0.2981 mL
50 mM	0.006 mL	0.0298 mL	0.0596 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Shin JM, et al. Biomedical applications of nisin. J Appl Microbiol. 2016 Jun;120(6):1449-65.

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