

## Nisin

<b>Cat. No.:</b>	HY-P1607
<b>CAS No.:</b>	1414-45-5
<b>Molecular Formula:</b>	C <sub>143</sub> H <sub>230</sub> N <sub>42</sub> O <sub>37</sub> S <sub>7</sub>
<b>Molecular Weight:</b>	3354.07
<b>Sequence:</b>	Ile-{Abu}-{d-Cys}-Ile-Ala-Leu-Cys-{d-Abu}-Pro-Gly-Cys-Lys-{d-Abu}-Gly-Ala-Leu-Met-Gly-Cys-Asn-Met-Lys-{d-Abu}-Ala-{d-Abu}-Cys-His-Cys-Ser-Ile-His-Val-Ala-Lys (Disulfide bridge: Cys3-Cys7, Abu8-Cys11, Abu13-Cys19, Abu23-Cys26, Abu25-Cys28)
<b>Sequence Shortening:</b>	I-{Abu}-{d-Cys}-IALC-{d-Abu}-PGCK-{d-Abu}-GALMGCNML-{d-Abu}-A-{d-Abu}-CHCSIHVAK (Disulfide bridge: Cys3-Cys7, Abu8-Cys11, Abu13-Cys19, Abu23-Cys26, Abu25-Cys28)
<b>Target:</b>	Bacterial; Antibiotic
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	Sealed storage, away from moisture and light Powder    -80°C    2 years -20°C    1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)

I-{Abu}-[D-Cys]-IALC-[D-Abu]-PGCK-[D-Abu]-GALMGCNML  
-[D-Abu]-A-[D-Abu]-CHCSIHVAK (Disulfide bridge: Cys3-Cys7,  
Abu8-Cys11, Abu13-Cys19, Abu23-Cys26, Abu25-Cys28)

### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 1 mg/mL (0.30 mM; Need ultrasonic)
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### BIOLOGICAL ACTIVITY

<b>Description</b>	Nisin is a bacteriocin produced by a group of Gram-positive bacteria that belongs to Lactococcus and Streptococcus species.
<b>In Vitro</b>	Nisin is classified as a Type A (I) lantibiotic that is synthesized from mRNA and the translated peptide contains several unusual amino acids due to post-translational modifications. Nisin is an antimicrobial peptide produced by certain Gram-positive bacteria that include Lactococcus and Streptococcus species <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

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

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

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