## Pulcherriminic acid

**MedChemExpress** 

Cat. No.:	HY-N10473				
CAS No.:	957-86-8				
Molecular Formula:	C <sub>12</sub> H <sub>20</sub> N <sub>2</sub> O <sub>4</sub>				
Molecular Weight:	256.3				
Target:	Bacterial; Fungal				
Pathway:	Anti-infection				
Storage:	Powder	-20°C	3 years		
		4°C	2 years		
	In solvent	-80°C	6 months		
		-20°C	1 month		

## SOLVENT & SOLUBILITY

Preparing Stock Solutions		Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.9017 mL	19.5084 mL	39.0168 mL	
	5 mM	0.7803 mL	3.9017 mL	7.8034 mL	
	10 mM				

DIOLOGICAL ACTIV	
Description	Pulcherriminic acid is a cyclic dipeptide antimicrobial agent with high affinity for Fe <sup>3+</sup> , found mainly in Bacillus and yeast. Pulcherriminic acid chelates iron ions through a non-enzymatic reaction to form the extracellular red pigment pulcherrimin, which competes for iron nutrition and thus achieves an antibacterial effect. Pulcherriminic acid has great applications in food, agriculture and medical industries <sup>[1][2]</sup> .
In Vitro	Pulcherriminic acid can inhibit the formation of Bacillus subtilis biofilm <sup>[2]</sup> . Pulcherriminic acid can form insoluble red pigment pulcherrimin in the presence of Fe <sup>3+</sup> to compete for iron nutrients, thereby inhibiting the growth of Metschnikowia yeasts <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

[1]. Siqi Yuan, et al. Research Progress of the Biosynthesis of Natural Bio-Antibacterial Agent Pulcherriminic Acid in Bacillus. Molecules. 2020 Nov 28;25(23):5611.

**Product** Data Sheet

O-

N<sup>+</sup> O<sup>-</sup>

HO

OH

[2]. Sofia Arnaouteli, et al. Pulcherrimin formation controls growth arrest of the Bacillus subtilis biofilm. Proc Natl Acad Sci U S A. 2019 Jul 2;116(27):13553-13562

[3]. Vytautas Melvydas, et al. In vitro inhibition of Saccharomyces cerevisiae growth by Metschnikowia spp. triggered by fast removal of iron via two ways. Braz J Microbiol. 2020 Dec;51(4):1953-1964. doi: 10.1007/s42770-020-00357-3. Epub 2020 Aug 11.

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

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