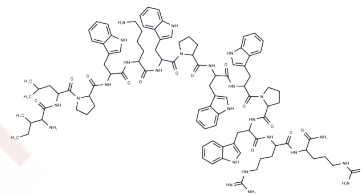


## Indolicidin

## Chemical Properties

CAS No. :	140896-21-5
Formula:	C100H132N26O13
Molecular Weight:	1906.28
Appearance:	no data available
Storage:	keep away from moisture Powder: -20°C for 3 years   In solvent: -80°C for 1 year



## Biological Description

Description	Indolicidin is comprised of 13 amino acids, 5 of which are tryptophan residues, and the carboxylterminal arginine is carboxamidated. Indolicidin has the highest tryptophan content of any known protein.
Targets(IC50)	Antibacterial
In vitro	Indolicidin, a powerful antimicrobial peptide extracted from bovine neutrophil cytoplasmic granules, comprises 13 amino acids, including a notably high tryptophan content, with five tryptophan residues, and features a carboxamidated carboxylterminal arginine. This peptide, recognized for having the highest tryptophan level among proteins, also acts as a tridecapeptide amide exhibiting bactericidal activities rivaling those of prominent defensins and bactenecins in vitro. Its mechanism includes binding to surface lipopolysaccharide with high affinity, facilitating the permeabilization of Escherichia coli's outer membrane via the self-promoted uptake pathway, as evidenced by its interaction with 1-N-phenylnaphthylamine. Furthermore, methyl esterification at Indolicidin's carboxyl terminus amplifies its effectiveness against both Gram-negative and Gram-positive bacteria, attributed to enhanced lipopolysaccharide binding and outer membrane permeabilization in Gram-negative bacteria, and pinpointing the cytoplasmic membrane as its action site through membrane permeabilization indicators in Escherichia coli.

## Solubility Information

Solubility	DMSO: 10 mM, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## A DRUG SCREENING EXPERT

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.5246 mL	2.6229 mL	5.2458 mL
5 mM	0.1049 mL	0.5246 mL	1.0492 mL
10 mM	0.0525 mL	0.2623 mL	0.5246 mL
50 mM	0.0105 mL	0.0525 mL	0.1049 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.

### Reference

Selsted ME, et al. Indolicidin, a novel bactericidal tridecapeptide amide from neutrophils. J Biol Chem. 1992 Mar 5; 267(7):4292-5.

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