

## Ceratotoxin A

Cat. No.:	HY-P1581		
CAS No.:	150671-04-8		
Molecular Formula:	C <sub>135</sub> H <sub>243</sub> N <sub>35</sub> O <sub>32</sub>		
Molecular Weight:	2868.59		
Sequence:	Ser-Ile-Gly-Ser-Ala-Leu-Lys-Lys-Ala-Leu-Pro-Val-Ala-Lys-Lys-Ile-Gly-Lys-Ile-Ala-Leu-Pro-Ile-Ala-Lys-Ala-Ala-Leu-Pro		
Sequence Shortening:	SIGSALKKALPVAKKIGKIALPIAKAALP		
Target:	Bacterial		
Pathway:	Anti-infection		
Storage:	Sealed storage, away from moisture		
	Powder	-80°C	2 years
		-20°C	1 year
	* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)		

SIGSALKKALPVAKKIGKIALPIAKAALP

### SOLVENT & SOLUBILITY

#### In Vitro

 H<sub>2</sub>O : 50 mg/mL (17.43 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent	1 mg	5 mg	10 mg
	Concentration			
	1 mM	0.3486 mL	1.7430 mL	3.4860 mL
	5 mM	0.0697 mL	0.3486 mL	0.6972 mL
	10 mM	0.0349 mL	0.1743 mL	0.3486 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

Description	Ceratotoxin A, a 29-residue peptide isolated from the accessory gland secretion fluid, with strong anti-bacterial activity.
IC <sub>50</sub> & Target	Bacterial <sup>[1]</sup>
In Vitro	Ceratotoxin A is a 29-residue peptide isolated from the accessory gland secretion fluid, shows anti-E.coli activity, and is heat stable <sup>[1]</sup> . Ceratotoxin A is effective against Escherichia coli ATCC 23739, Pseudomonas aeruginos ATCC 27853, and Bacillus subtilis ATCC 6633 with minimal inhibitory concentration (MIC) of 7, 7, and 3.5 μM <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

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[1]. Marchini D, et al. Purification and primary structure of ceratotoxin A and B, two antibacterial peptides from the female reproductive accessory glands of the medfly *Ceratitis capitata* (Insecta:Diptera). *Insect Biochem Mol Biol.* 1993 Jul;23(5):591-8.

[2]. Marri L, et al. The novel antibacterial peptide ceratotoxin A alters permeability of the inner and outer membrane of *Escherichia coli* K-12. *Curr Microbiol.* 1996 Jul;33(1):40-3.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA