

Iseganan

Cat. No.:	HY-P3512	
CAS No.:	257277-05-7	
Molecular Formula:	C ₇₈ H ₁₂₆ N ₃₀ O ₁₈ S ₄	
Molecular Weight:	1900.28	RGGLCYCRGRFCVCVGR-NH ₂ (Disulfide bridge:Cys ₅ -Cys ₁₄ Cys ₇ -Cys ₁₂)
Sequence Shortening:	RGGLCYCRGRFCVCVGR-NH ₂ (Disulfide bridge:Cys5-Cys14, Cys7-Cys12)	
Target:	Bacterial; Fungal; Parasite	
Pathway:	Anti-infection	
Storage:	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)	

SOLVENT & SOLUBILITY

In Vitro

H₂O : 100 mg/mL (52.62 mM; Need ultrasonic)
DMSO : 25 mg/mL (13.16 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	0.5262 mL	2.6312 mL	5.2624 mL
	5 mM	0.1052 mL	0.5262 mL	1.0525 mL
	10 mM	0.0526 mL	0.2631 mL	0.5262 mL

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

BIOLOGICAL ACTIVITY

Description

Iseganan is an anti-microbial peptide that is active against both Gram-positive and Gram-negative bacteria and fungi. Iseganan kills a broad-spectrum of bacteria and fungi by attaching to and destroying the integrity of the lipid cell membranes. Iseganan can be used for oral mucositis research^{[1][2][3]}.

In Vitro

Iseganan (200 and 400 µg/mL; 24 h) disrupts *T. crassiceps* cysticerci in vitro^[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Cell Viability Assay^[3]

Cell Line:	Cysticerci
Concentration:	200 and 400 µg/mL

	Incubation Time:	24 hours
	Result:	Showed loss of motility, size decrease, as well as disruption of the bladder wall.
In Vivo	Iseganan (intraperitoneal injection; 200 and 400 µg per mouse; once) shows anti-parasite activity in <i>T. crassiceps</i> murine cysticercosis model ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Female BALB/cAnN mice injected with <i>T. crassiceps</i> ^[3]
	Dosage:	200 and 400 µg per mouse
	Administration:	Intraperitoneal injection; 200 and 400 µg per mouse; once
	Result:	Reduced the parasite load by 25% when compared with the control group.

REFERENCES

- [1]. Toney JH. Iseganan (IntraBiotics pharmaceuticals). *Curr Opin Investig Drugs*. 2002 Feb;3(2):225-8.
- [2]. Giles FJ, et al. Iseganan HCl: a novel antimicrobial agent. *Expert Opin Investig Drugs*. 2002 Aug;11(8):1161-70.
- [3]. Landa A, et al. Antimicrobial peptides (Temporin A and Iseganan IB-367): effect on the cysticerci of *Taenia crassiceps*. *Mol Biochem Parasitol*. 2009 Apr;164(2):126-30.

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

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