Data Sheet

Product Name:	Cecropin B
Cat. No.:	CS-5902
CAS No.:	80451-05-4
Molecular Formula:	C176H302N52O41S
Molecular Weight:	3834.67
Target:	Cytochrome P450
Pathway:	Metabolic Enzyme/Protease
Solubility:	H2O : 20 mg/mL (5.22 mM; Need ultrasonic and warming)

KWKVFKKIEKMGRNIRNGIVKAGPAIAVLGEAKAL-NH_2

BIOLOGICAL ACTIVITY:

Cecropin B has high level of antimicrobial activity and is considered as a valuable peptide antibiotic. Sequence: Lys-Trp-Lys-Val-Phe-Lys-Lys-Ile-Glu-Lys-Met-Gly-Arg-Asn-Ile-Arg-Asn-Gly-Ile-Val-Lys-Ala-Gly-Pro-Ala-Ile-Ala-Val-Leu-Gly-Glu-Ala-Lys-Ala-Leu-NH2. **In Vitro:** Cecropin B-induces NF-κB activation playing a pivotal role in the suppression of CYP3A29 through disrupting the association of the PXR/retinoid X receptor alpha (RXR-α) complex with DNA sequences. Cecropin B activates pig liver cells by interacting with TLRs 2 and 4, which modulated NF-κB-mediated signaling pathways[1]. **In Vivo:** The wounds are moist with more exudation in C group, while that in other groups are dry without obvious exudation. The body temperature of the majority of the mice in each group is elevated, but the number of leucocytes in each group is lowered after operation. The quantity of bacteria in muscle in A group is obviously lower than that in M group and C group. The number of surviving mice after 4 PID in C group is evidently smaller than that in A and M groups(P<0. 05)[2].

PROTOCOL (Extracted from published papers and Only for reference)

Animal Administration: [1]Mice[1]

Thirty ICR **mice** are enrolled in the study, and the Pseudomonas aeruginosa infection model is reproduced by excision of the full layer of dorsal skin with an area of 1 cm x 1 cm. Then they are randomly divided into C (control, n=10, with wet compress of isotonic saline at 3 postinjury hour (PIH)) , M (with hydropathic compress of 100 g/L mafenide at 3 PIH), A (with wet compress of **1 000 mg/L Cecropin B** at 3 PIH) groups. The changes in body temperature and hemogram in each group are determined before and 4 days after injury[2].

References:

[1]. Zhou X et al. Cecropin B Represses CYP3A29 Expression through Activation of the TLR2/4-NF-κB/PXR Signaling Pathway. Sci Rep. 2016 Jun 14

[2]. Ren HT et al. [The antibacterial effect of cecropin B on pseudomonas aeruginosa infection of wounds in mice]. Zhonghua Shao Shang Za Zhi. 2006 Dec;22(6):445-7.

CAIndexNames:

L-Leucinamide, L-lysyl-L-tryptophyl-L-lysyl-L-valyl-L-phenylalanyl-L-lysyl-L-lysyl-L-isoleucyl-L-α-glutamyl-L-lysyl-L-methionylglycyl-L-arginyl-L-asparaginyl-L-isoleucyl-L-arginyl-L-asparaginylglycyl-L-isoleucyl-L-valyl-L-lysyl-L-alanylglycyl-L-prolyl-L-alanyl-L-isoleucyl-L-alanyl-L-valyl-L-leucylglycyl-L-α-glutamyl-L-alanyl-L-lysyl-L-alanyl-

SMILES:

[KWKVFKKIEKMGRNIRNGIVKAGPAIAVLGEAKAL-NH2]

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

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

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