Cecropin B

Cat. No.: HY-P0092
CAS No.: 80451-05-4
Molecular Formula: C₁₇₆H₃₀₂N₅₂O₄₁S
Molecular Weight: 3834.67
al-Lys-Ala-Gly-Pro-Ala-Ile-Ala-Val-Leu-Gly-Glu-Ala-Ala-Leu-NH₂
Sequence Shortening: KWKVFKKIEKMRNIRNGIVKAGPAIAVLGEAKAL-NH₂
Target: Cytochrome P450
Pathway: Metabolic Enzyme/Protease
Storage: Powder
-80°C  2 years
-20°C  1 year
In solvent
-80°C  6 months
-20°C  1 month

BIOLOGICAL ACTIVITY

Description
Cecropin B has high level of antimicrobial activity and is considered as a valuable peptide antibiotic.

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 pathways¹.

In Vivo
The wounds are moist with more exudation in the 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

Animal Administration [¹]
Mice
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 hydrophathic 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 injury².

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

Product Data Sheet
Inhibitors • Agonists • Screening Libraries

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REFERENCES


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