Peceleganan acetate

Cat. No.: HY-P3383A

Molecular Formula: $C_{140}H_{230}N_{36}O_{36}$

Molecular Weight: 2993.55

Sequence: Ac-Lys-Trp-Lys-Ser-Phe-Leu-Lys-Thr-Phe-Lys-Ser-Ala-Ala-Lys-Thr-Val-Leu-His-Thr-Ala-Leu-Lys-Ala-Ile-Ser-Ser-NH2

Ac-KWKSFLKTFKSAAKTVLHTALKAISS-NH_2 (acetate salt)

Sequence Shortening: Ac-KWKSFLKTFKSAAKTVLHTALKAISS-NH2

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)

SOLVENT & SOLUBILITY

In Vitro

H_2O : 50 mg/mL (16.70 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.3341 mL	1.6703 mL	3.3405 mL
	5 mM	0.0668 mL	0.3341 mL	0.6681 mL
	10 mM	0.0334 mL	0.1670 mL	0.3341 mL

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

BIOLOGICAL ACTIVITY

Description

Peceleganan (PL-5) acetate is an artificial antimicrobial cecropin A (1-10) × melittin B (3-18) hybrid (10+16)-peptide analogue. Peceleganan acetate inhibits wound infection[1].

In Vitro

Peceleganan (24 h) acetate shows antibacterial activity with MICs of 2, 2, 4, 4, 4 and 8 μM against E. coli ATCC 25922, S. pneumonia ATCC 49619, K. pneumonia ATCC 700603, S. aureus ATCC 25923, S. epidermidis ATCC 12228 and P. aeruginosa ATCC 27853, respectively[2].

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

In Vivo

Peceleganan (0.4 and 0.75 mg/mL for 100 μL; transdermal; twice daily for 3 days) acetate inhibits Staphylococcus aureus in the mouse infection model[2].

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

Animal Model:	ICR male mice (20-25 g), S. aureus ATCC 25923 wound infection model[2]
Dosage:	0.4 and 0.75 mg/mL for 100 μL
Administration:	Transdermal administration, twice daily for 3 days
Result:	Significantly reduced the amount of bacteria.

REFERENCES

[1]. WHO Drug Information. International Nonproprietary Names for Pharmaceutical.

[2]. Feng Q, et al. Functional synergy of α-helical antimicrobial peptides and traditional antibiotics against Gram-negative and Gram-positive bacteria in vitro and in vivo. Eur J Clin Microbiol Infect Dis. 2015 Jan;34(1):197-204.

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