

Dermaseptin acetate

Chemical Properties

CAS No. :

Formula:

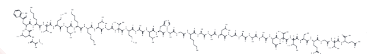
Molecular Weight:

Keep away from moisture

Storage:

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Dermaseptin acetate, a peptide isolated from frog skin, exhibits potent antimicrobial activity against bacteria, fungi, and protozoa at micromolar concentration[1].
Targets(IC50)	Antibacterial
In vitro	Dermaseptin acetate is a water-soluble, thermostable, and nonhemolytic peptide endowed with highly potent antimicrobial activity against pathogenic fungi at micromolar concentration. Circular dichroism spectra of Dermaseptin acetate in hydrophobic media indicated 80% alpha-helical conformation, and predictions of secondary structure suggested that Dermaseptin acetate can be configured as an amphiphatic alpha-helix spanning over residues 1-27, a structure that perturbs membrane functions regulating water flux[1]. Dermaseptin acetate exerts a lytic action upon bacteria, protozoa, yeasts, and filamentous fungi at micromolar concentrations. Molecular elements responsible for the exceptional antimicrobial potency of Dermaseptin acetate are to be traced to the NH ₂ -terminal alpha-helical amphiphatic segment spanning residues 1-18 of the molecule[1]. Dermaseptin acetate (5-100 µg/ml; 48 hours) inhibits by 100% the proliferation of most microorganisms tested, including Gram-positive or Gram-negative bacteria, parasites, yeasts, and filamentous fungi, at micromolar concentrations[2]. Dermaseptin acetate (5-100 µg/ml; 48 hours) does not inhibit the proliferation of human KJ3 cells after a 48 h incubation, and Dermaseptin acetate treatment for 1 h does not permeate guinea pig lymphocytes up to the highest concentration assayed (200 µg/ml). Hemolysis of rabbit erythrocytes occurs after 1 h of treatment at doses above 200 µg/ml, with 50% hemolysis at 350 µg/ml[2]. Dermaseptin acetate has antimicrobial activities and is against <i>Aeromonas cauiiae</i> , <i>Pseudomonas aeruginosa</i> , <i>Escherichia coli</i> , <i>Enterococcus faecalis</i> , <i>L. mezicana</i> (NFα strain) and <i>Microsporium canis</i> (IP1194) with MIC values of 50 µg/ml; 100 µg/ml; 25 µg/ml; 15 µg/ml; and 50 µg/ml, respectively[2].

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Tel:781-999-4286

E_mail:info@targetmol.com

Address:34 Washington Street,Wellesley Hills,MA 02481