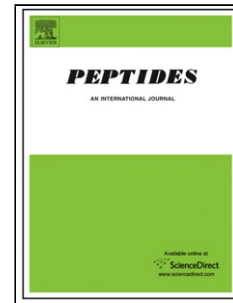


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Identification and Screening of Potent Antimicrobial Peptides in Arthropod Genomes

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Highlights:

- Several cecropin and defensin derivatives were identified via BLAST searches in recently sequenced arthropod genomes such as the monarch butterfly (*Danaus plexippus*), human body louse (*Pediculus humanus humanus*), and red flour beetle (*Tribolium castaneum*). Predicted peptide sequences were synthesized and screened for antimicrobial activity.
- Four out of six peptides synthesized and tested, LOUDEF1, HOLO1, DAN1, and DAN2, showed potent antimicrobial activity against bacterial and fungal human pathogens. Also, these peptides exhibited no hemolytic activity at a concentration as high as 200 µg/ml.

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