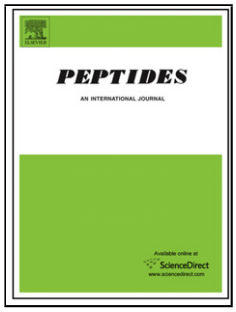

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The cationic tetradecapeptide mastoparan as a privileged structure for drug discovery: Enhanced antimicrobial properties of mitoparan analogues modified at position-14

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Highlights

- The mitochondriotoxic tetradecapeptide mitoparan (MitP) is a convenient molecular template for the design and synthesis of antimicrobial peptides.
- Rational modification to the carboxyl-terminal of MitP engineered analogues that lack unwanted influences upon eukaryotic cells. This finding is particularly significant since almost all structurally related cationic peptides, claimed to be antimicrobials, are generally cytotoxic and promote mast cell degranulation
- As exemplified by the properties of [Ser^{14}]MitP, these studies provide new avenues for the development of peptides active against both prokaryotes, including the Gram-negative *A. baumannii*, and eukaryotic human pathogens like *C. neoformans.*

ABSTRACT