

Mode of action of antimicrobial peptide cecropin B on *Escherichia coli*

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ABSTRACT

The peptide antibiotic cecropin B, having one hydrophobic and one amphipathic α -helix, was used to test its killing pathway on *Escherichia coli*. The cell morphological changes after the treatment of peptide were observed by using transmission electron microscopy (TEM). The results show that cecropin B causes

cells to swell to death. The outer membrane is separated from the plasma membrane by the incoming water from the outside media. A method of TEM with immuno-gold labeling was applied to identify this scenario. These outcomes may provide useful information for the establishment of the computer modeling for future peptide antibiotic design.