

Determination of Antimicrobial Activity of Brevinin-2R Against Gram Negative Reference Strains of Bacteria

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Background & Objectives: Most amphibian's skin granular glands release some antimicrobial peptides under stress and injury as a part of defense system against pathogens. Brevinin peptides isolated from frogs belonging to the family Ranidae showed broad spectrum antimicrobial activity against gram-negative and gram-positive bacteria with moderate hemolytic activity.

Methods: This study evaluates the antibacterial activity of brevinin-2R against reference strains of *Escherichia coli* and *Pseudomonas aeruginosa* by broth micro dilution methods. In broth micro dilution test, microorganisms are tested for their ability to produce visible growth in micro plate wells of broth containing dilutions of the antimicrobial agent.

Results: This study showed that MIC value were 12.5 µg/ml for *Pseudomonas aeruginosa* and 0.39 µg/ml for *E. coli*.

Conclusion: Although, it can be concluded that brevinin-2R have antibacterial effect against *E. coli* and *Pseudomonas aeruginosa* as reference gram negative bacteria, however more studies needed to clarify mode of action and mechanism.

Keywords: Amphibian; Antimicrobial Activity; Brevinin-2R

