

## Role of lysosomes dependence on cellular senescence in the bovine aortic endothelial cells

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This study investigated the antimicrobial activities of lysosomes as a cell organelles against tested microorganisms. The observed antimicrobial activity was positively correlated with lysosomes of mammalian cells. Lysosomes isolated mammalian cells have shown antimicrobial activity. The observed antimicrobial activity was positively correlated with different aging. Lysosomes isolated mammalian cells were prepared by the buffer with a pH of 6.0. We found that the optimal activity of lysosomes participates in 10P control and has shown aging-dependent intra-organelle killing. The efficiency of this lysosomes in terms of inhibition of bacterial growth and bacterial activity was evaluated during a 12-hour treatment period. Growth was assessed by determination of colony forming units(CFU) of bacteria which allowed us also to determine the extent of bacterial growth. In this study, we used E. coli as bacterial strains. It was showed that in lysosome-treated solid medium, lysosomes caused 90% decrease in CFU within 12 hrs of treatment. We suggest that these highly effective lysosomes of mammalian cells have a bright future in modern agriculture or clinical application as a biopesticides functioned with antimicrobial activity.