

Bacteriocin Isolated From *Lactobacillus paracasei*

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ABSTRACT

Probiotics are live microorganisms that are intended to have health benefits. Research suggest that probiotics might help to prevent or treat a variety of health problems such as digestive disorders (diarrhoea, irritable bowel syndrome and inflammatory bowel disease), tooth decay, colic in infants and allergic disorders. *Lactobacillus* and *Bifidobacteria* are the predominant organisms that are categorized under probiotics. *Lactobacillus paracasei* is a gram positive, rod shape, non-motile facultative aerobe. *Lactobacillus paracasei* was isolated from probiotic drink, Yakult. The sample was serially diluted and spread plated on MRS agar medium and incubated under anaerobic condition. Various biochemical and invitro tests are done. Pure colony was inoculated in MRS broth and incubated under anaerobic conditions. The broth was then centrifuged and the supernatant contains the crude bacteriocin, which was the subjected to Lowry's method of protein estimation. The crude bacteriocin was then subjected to partial purification- Ammonium sulphate precipitation followed by dialysis. Anti-bacterial activity was performed to test the efficiency of the bacteriocin against pathogenic strains. The bacteriocin was characterized (pH, temperature and anti-bacterial activity). The bacteriocin can be further purified and structural studies done to identify the bacteriocin and further study its applications.