

ABSTRACT

Profile of Bioautogram Bacteriocin in the Preparation of Probiotic Milk against *Staphylococcus aureus* ATCC 25923

Probiotic milk is a milk that contain probiotic bacteria. Probiotics is life microbial feed supplement; which beneficially affect the host animal by improving its intestinal microbial balance. The probiotic bacteria produce antimicrobial substances; that can inhibit the growth of pathogenic bacteria, that called bacteriocin. One of the bacteriosin is nisin, which exhibit antimicrobial activity against a wide range of Gram positive bacteria, and is particularly affective against bacterial spores. Seven from twenty probiotic milk samples contained in the marketplace, have been extracted to precipitate the bacteriocin. The extracts were then analyzed by using TLC-bioautography methods with n-buthanol, acetat acid, water and *Staphylococcus aureus* ATCC 25923 as pathogenic bacteria. Of inhibition zone diameter obtained, can be known whether in the same concentration, samples of probiotic milk have different antibacterial activity. There are different profile bioautogram from extracted samples of probiotic milk. Three from seven extracted samples have the same rf, but none of that extracted samples have the same rf with nisin. All of extracted sample have microbial activity but smaller than nisin activity to against *Staphylococcus aureus* ATCC 25923 bacteria.

Keyword : probiotic milk, bioautography, bacteriocin, nisin, *Staphylococcus aureus*.

