PROFILE OF PROTEIN MOLECULAR WEIGHT METABOLITE RESULT ISOLATE LACTIC ACID BACTERIA *Pediococcus pentosaceus* BY *SODIUM DODECYL SULPHATE POLYACRILAMIDE GEL ELECTROPHORESIS* METHOD

Wieke Setiowati

ABSTRACT

The aim of this research is to get the protein profile based on protein molecular weight metabolite result isolate LAB *Pediococcus pentosaceus* by SDS-PAGE. The result of metabolite produces antibiotic-like compounds. *Pediococcus pentosaceus* can produces *bacteriocin* and utilization in biopreservation process. Before *running* SDS-PAGE, crude extract is purified. Purification in this research using ammonium sulfate precipitation with 20%, 40%, 60%, 80% and 100% saturation then continued dialysis process. The purification process is success at concentration 40% saturation, because the protein can be expressed the most compared to other concentrations. The result of protein profile from *Pediococcus pentosaceus* by SDS-PAGE have 17 bands with protein molecular weight 108.9 kDa, 92.9 kDa, 73.5 kDa, 67.6 kDa, 61.9 kDa, 56.5 kDa, 52.4 kDa, 46.9 kDa, 43.9 kDa, 39.4 kDa, 34.5 kDa, 31.9 kDa, 29.4 kDa, 27 kDa, 23.4 kDa and 14.2 kDa.

Keywords: *Pediococcus pentosaceus*, *bacteriocin*, SDS-PAGE