A study on exopolysaccharide production by lactic acid bacteria

Abstract

A large amount exopolysaccharide (EPS) producing *Lactobacillus sp.* namely BT 261 was isolated from thai treaditional fermentation pork (Nham). Optimization of nutritional compositions in EPS producing MRS was conducted by the experimental design for main factors effected selection by Plackett and Burman designs. The main factors were optimized by the Mixture designs. They were revealed that Tri – ammonium citrate, Sodium acetate and $MnSO_4$ were the main factors with maximal induction at 2, 7.6 and 0.4 g/l respectively. When EPS production was controlled in 5 litre (4 litre working volume) fermentor with 200 rpm agitation and pH 6.0 adjustment. The EPS was carried out up to 39.35 g/l with 80 g/l sucrose as a sole of carbon, From this point of views and economic possibility, the production of EPS have to investigate and compare in pilot scale in the future.