

E223 Expression and Purification of Recombinant Toxin Shock Syndrome Toxin I

Choi Young Sil * · Lee Chong Sam

Dept. of Biology, College of Natural Sciences, Sungshin Women's Univ.

Toxic-shock-syndrome toxin I (TSSTI), an exotoxin produced by *staphylococcus aureus*, has been closely associated with the pathogenesis of toxic shock syndrome. We report here a strategy for the high level expression and the simplified purification of TSST I. It has subcloned the coding region of TSST I into a pRSET-B vector contained an inducible T7 promoter sequence and TSST I protein in host strain (*Escherichia coli* JM109) were expressed. The recombinant TSST I protein contained 6 sequential histidine residues(Histag) at its N-terminals was isolated and purified by using the nickel-agarose-affinity resin effectively. Histag-TSST I(H-TSST I) was further purified by utilizing a Ni-NTA column. Through this course 80~120 μ g of highly purified H-TSST I can be consistently obtained per 50ml of culture. It was confirmed by RPLA-SET assay whether H-TSST I was given the effect by Histag or the presence of biological activity.

E224 Detection of Enterotoxin Production by *Staphylococci* Isolated from Foodstuffs and Clinical Specimen in Korea.

Choi Young Sil * · Lee Chong Sam

Dept. of Biology, College of Natural Sciences, Sungshin Women's Univ.

187 *Staphylococcus aureus* and other Staphylococcal strains were isolated from 760 foodstuffs current in Korea and from 45 clinical specimen. The ability to produce Staphylococcal enterotoxin and the biotype of the isolates were analyzed. *S.aureus*(38.0%) among these isolates produced at least one of the five known Staphylococcal enterotoxins whereas coagulase negative Staphylococci did not produce any of them. 75.5% of the *S.aureus* isolated from these clinical specimen produced enterotoxins whereas 28.8% among the *S.aureus* isolated from foodstuffs were found to produce enterotixins. *S.aureus* founded in the disease of the human had been mostly enterotoxin gene, and enterotoxin A and C were the predominant type. These types were confirmed 33.3% and 53.5% out of the enterotoxigenic strains and were existed singly or in combination with other enterotoxins. The predominant types of *S.aureus* isolated from foodstuffs were enterotoxin A and B, and these enterotoxins were ascertained in 37.5% and 43.8%.