

Genes expression in biosynthesis Lipopolysaccharide of Burkholderia pseudomallei the causative agent of melioidosis.

ABSTRACT

Burkholderia pseudomallei is the causative agent of melioidosis, a serious disease of man and animals. The high mortality of B. pseudomallei infections may cause by Lipopolysaccharides (LPS), an endotoxin. The biosynthesis of LPS is complex comprising three components, lipid A, core oligosaccharide and O-specific antigen. In the current study was designed to further elucidate genes involved in the biosynthesis pathway of LPS in melioidosis agent followed with selected gene product expression with essential function for survival and virulence melioidosis agent. Expression of Bplps0013/lpxA and Bplps0007/rfaF successful expressed the entire proteins in 2 h with sizes of approximately 29 kDa and 43.7 kDa, respectively. The baseline information provided through the present research can be a preliminary approach towards the development of effective therapeutics against melioidosis.

Keyword: Lipopolysaccharide; Melioidosis; Burkholderia pseudomallei; Expression; Restriction enzyme digestion; Western blot.