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KEY WORD : *BURKHOLDERIA PSEUDOMALLEI* / MELIOIDOSIS /
MONOCLONAL ANTIBODY

PRAKAITIP THONGKOOM : PRODUCTION AND CHARACTERIZATION
OF MONOCLONAL ANTIBODIES TO *BURKHOLDERIA PSEUDOMALLEI*
ANTIGENS EXPRESSED IN THE BACTERIAL-INFECTED HUMAN CELL
LINE. THESIS ADVISOR : TARARAJ DHARAKUL, M.D., Ph.D., SIRIRURG
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The hybridomas were produced by immunizing BALB/c mice with two of the *Burkholderia pseudomallei* antigen preparations; *B. pseudomallei* infected MRC5 cells and the acetone-dried *B. pseudomallei* antigen. The hybridomas producing monoclonal antibodies that recognized *B. pseudomallei* were selected by an indirect enzyme linked immunosorbent assay (ELISA). A total of 34 clones were obtained. Western blot analysis of the obtained monoclonal antibodies indicated that they recognized lipopolysaccharide and several proteins of *B. pseudomallei*. These monoclonal antibodies exhibited different immunoperoxidase staining patterns with the MRC5 cells infected with *B. pseudomallei*. The monoclonal antibodies that recognized the *B. pseudomallei* lipopolysaccharide gave strongly positive cytoplasmic staining of the infected cells and of the bacteria. The monoclonal antibodies that recognized 29, 26 and 24 kDa *B. pseudomallei* proteins gave strongly positive nuclear staining pattern in all cells that contacted the bacteria but not in the uninfected cells. In addition, one of the monoclonal antibodies, Bps-C1, gave negative Western blot staining but gave strongly positive cytoplasmic staining of both infected and uninfected MRC5. The *B. pseudomallei* reactive monoclonal antibodies that recognized the bacterial antigens in infected cells obtained from this study will be a valuable tool to elucidate the pathogenesis of melioidosis in the future.