

IMMUNE RESPONSES OF SELECTED PHAGOTOPES FROM MONOCLONAL ANTIBODIES OF *BURKHOLDERIA PSEUDOMALLEI*

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Abstract. Random peptide libraries displayed by bacteriophage T7 and M13 were employed to identify mimotopes from 4 monoclonal antibodies (MAbs) specific to *Burkholderia pseudomallei*. Insert DNA sequences of bound phages selected from four rounds of panning with each MAb revealed peptide sequences corresponding to *B. pseudomallei* K96243 hypothetical protein BPSL2046, hypothetical protein BpseP_02000035, *B. pseudomallei* K96243 hypothetical protein BPSS0784, *B. pseudomallei* 1710b hypothetical protein BURPS1710b_1104, and *B. cenocepacia* H12424 TonB-dependent siderophore receptor, all located at the outer membrane. The immune responses from all selected phagotopes were significantly higher than that of lipopolysaccharide. The study demonstrates the feasibility of identifying mimotopes through screening of phage-displayed random peptide libraries with *B. pseudomallei* MAbs.

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