

CHAPTER II

OBJECTIVE

The aim of this research was to construct humanized-monoclonal antibody in the form of single-chain variable fragment (scFv) specific against pathogenic *Leptospira* strains using antibody engineering technique. The protective efficacy of murine monoclonal antibody (MAb) clone LPF1 against pathogenic *Leptospira* spp. both *in vitro* by hemolysis inhibition assay and *in vivo* by neutralization assay in experimental leptospirosis hamster model was also determined and compared with those of the constructed humanized scFv fragment.