

## LIST OF TABLES

| <b>Table</b>   | <b>Page</b> |
|--|-------------|
| <b>LITERATURES REVIEW</b>  |             |
| 1. General features of the <i>L. interrogans</i> chromosomes   | 11          |
| 2. Clasification of <i>Leptospira</i> species  | 24          |
| 3. Tests available for the leptospirosis diagnosis   | 45          |
| 4. Design antibodies for human therapy   | 56          |
| 5. Diverse use of antibody based therapy   | 60          |
| 6. Monoclonal antibodies approved for therapeutic use in the United States   | 63          |
| 7. Examples of humanized antibody and derivatives  | 70          |
| 8. Summary of single chain variable fragment (scFv)  | 76          |
| <b>MATERIALS AND METHODS</b>   |             |
| 9. List of <i>Leptospira</i> spp. used in this study   | 81          |
| 10. Nucleotide sequences of degenerate primers used for murine scFv amplification  | 91          |
| 11. PCR condition for amplifying <i>VH/VL</i> , <i>EVH/EVL</i> and scFv genes  | 92          |
| <b>RESULTS</b>   |             |
| 12. The optical density and percentage of RBC hemolysis mediated by various concentrations of <i>L. interrogans</i> , serogroup Pomona, serovar Pomona | 117         |
| 13. Mortality rate of hamsters after infection with various concentration of <i>Leptospira pomona</i> and LD50 calculation                             | 122         |
| 14. Morbidity of experimental hamsters in all groups post-challenged   | 123         |
| 15. <i>Leptospira</i> culture from blood, urine and various internal organs of dead and survived hamsters at day 21 post-infection                     | 125         |
| 16. Pathological lesions grading of each organ   | 133         |

### LIST OF TABLES (Cont.)

| <b>Table</b>  | <b>Page</b> |
|---|-------------|
| 17. Result of total RNA extraction from hybridoma clone LPF1 and myeloma cells  | 148         |
| 18. Optical densities of selected phages clones against <i>Leptospira</i> homogenate and BSA in indirect ELISA, <i>Mva</i> I patterns of muscFv carrying phage clones, and hemolysis inhibition test of individual crude recombinant murine (muscFv) against pathogenic <i>Leptospira interrogans</i> , serogroup Pomona, serovar Pomona. | 156         |
| 19. CDRs identification of murine recombinant scFv and human most matched VH and VL   | 168         |
| 20. Morbidity of experimental hamsters in all groups (trial III)  | 200         |
| 21. Summary of HuscFv antibody therapeutic trial against heterologous <i>Leptospira</i> infection   | 201         |
| 22. Pathological lesions grading of each organ  | 208         |
| 23. <i>Leptospira</i> culture from blood, urine and various internal organs of dead and survived hamster at day 21 post-infection   | 209         |
| 24. Pathological changes of hamster in each group   | 211         |