

CHAPTER VII

CONCLUSIONS

1. Five DENV-2 prM-E VLPs constructs including pC2-D2prM-E, pC2-D2YPTI-prM-E, pC2-D2C-prM-E, pC2-D2YPTI-C-prM-E and pcDNA-D2opt.prM-E were successfully constructed.

2. Capsid signal sequence helps improve E protein expression in cell lysate but not in supernatant.

3. Western blot analysis to detect E protein expression in the native form by loading with DTT-free non-reducing loading buffer could improve the detection sensitivity.

4. Among these 5 DENV-2 prM-E VLPs, pcDNA-D2opt.prM-E gave the highest E protein expression in cell lysate and supernatant and the optimal transfection condition is 8 ug plasmids / 1.8×10^6 HEK 293 cells at day 3 post transfection.

5. Oleic acid treatment at 100 μ M of the VLPs transfected cells could improve E protein expression in cell lysate of pcDNA-D2opt.prM-E transfection.