

## CHAPTER VI

### CONCLUSION

In this study, dsRNA-PmRab7 was used to suppress LvRab7 gene in order to investigate IHHNV replication through RNAi technology. LvRab7 was suppressed 2 and 4 days after dsRNA-PmRab7 injection with the low dose (0.63  $\mu\text{g}$  dsRNA-PmRab7 per 1 g shrimp) injection. The IHHNV both  $6 \times 10^6$  and  $6 \times 10^7$  particles can completely infect in *L. vannamei* after 5 days IHHNV challenge.

Suppression of LvRab7 mRNA by using dsRNA-PmRab7 showed inhibition of IHHNV replication in both the co-injection ( $6 \times 10^7$  particles of IHHNV and dsRNA-PmRab7) and the injection of dsRNA-PmRab7 2 days before IHHNV challenge.

In the therapeutic effect of dsRNA-PmRab7 on IHHNV replication, the low dose (0.63  $\mu\text{g/g}$  shrimp) can significantly inhibit IHHNV replication after 5 days IHHNV challenge. Furthermore, the double injection of dsRNA-PmRab7 (2.5  $\mu\text{g}$  dsRNA-PmRab7 per 1 g shrimp) 1 and 5 day (s) after IHHNV challenge can reduce IHHNV replication after 10 days IHHNV challenge. However, some shrimps that used to perform in the therapeutic effect are natural IHHNV-infected shrimp.

Silencing of PmRab7 resulted in both prevention and therapeutic effect on IHHNV infection.