

## CHAPTER II

### OBJECTIVE

#### 2.1 Rationale

In shrimp, PmRab7 or *Penaeus monodon* small GTPase protein was identified as one of the WSSV-VP28 binding protein (36). Interestingly, prevention of shrimp viruses by dsRNA-PmRab7 which designed corresponding to an endogenous Rab7 gene can inhibit both DNA and RNA viruses such as WSSV, YHV, LSNV and TSV (38-40). These results suggested the possible function of Rab7 in endosomal trafficking of viruses that replicate in shrimp. Therefore, suppression of Rab7 by dsRNA-PmRab7 is possibly inhibited IHHNV replication.

#### 2.2 Hypothesis

LvRab7 is involved in the endosomal trafficking process of IHHNV. Therefore, the silencing of LvRab7 could inhibit IHHNV replication in *L. vannamei*.

#### 2.3 Objective

The aim of this study is to suppress the LvRab7 transcription in order to inhibit IHHNV replication by using dsRNA-PmRab7.