CHAPTER 5

CONCLUSION

1. DNA from *P. falciparum*, isolate K1, was digested with EcoRI*, inserted into pUN121 at EcoRI site and cloned in *E. coli*.

2. From DNA library containing 20,000 clones, 53 clones were selected by colony hybridization with total genomic DNA of *P. falciparum*.

3. The insert sizes of 53 recombinant plasmids ranged from 0.2 kb to 15.4 kb, with 70% of less than 4 kb.

4. From Southern blot hybridization of recombinant plasmids using total genomic DNA of *P. falciparum* as probe, recombinant plasmid pUNK1-32, -34, -43, -45, -51 were selected based on their strong intensity compared to pBRK1-14 and their similar intensity compared to Rep.20,

5. From dot blot hybridization of pUNK1-32, -34, -43, -45 and -51 using total genomic DNA of *P. falciparum* as probe, pUNK1-34 and -45 were selected based on their relative strong intensity.

6. pUNK1-34 and -45 could detect *P. falciparum* in 20 µl of infected blood at the level of 0.005 % parasitemia.

7. pUNK1-45 was able to detect 5,000-1,000 sporozoites and could detect sporozoites and oocysts in less than one infected mosquito.

8. pUNK1-34 and -45 did not cross hybridize with DNA of human, *An. dirus* and other *Plasmodium* species eg. *P. knowlesi*, *P. cynomolgi*, *P. vivax* and *P. chabaudi* (except pUNK1-34).

9. The insert size of pUNK1-34 and pUNK1-45 were 2.1 and 3.9 kb. The restrictinn map of pUNK1-34 insert showed there were single site for Acc I, Pvu II and Cla I, and those of pUNK1-45 Nde I, Kpn I, Cla I.

10. The estimated copy number of insert in plasmid pUNK1-34 and pUNK1-45 was 25 and 120.

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