

## CHAPTER VI

### CONCLUSION

Thirteen medicinal plants, *Caesalpinia sappan*, *Derris scandens*, *Duranta repens*, *Gossypium herbaceum*, *Homalomena aromatica*, *Houttuynia cordata*, *Litchi chinensis*, *Loranthus pentandrus*, *Phyllanthus amarus*, *Phyllanthus emblica*, *Rhinacanthus nasutus*, *Santalum album*, and *Saussurea lappa* were screened for anti-HBsAg activity. Anti-HBsAg activity and cytotoxicity of the medicinal plant extracts were evaluated in PLC/PRF/5 cells.

The lowest  $IC_{50}$  of crude extract was found in *Saussurea lappa* (42.18  $\mu\text{g/ml}$ ). Followed by *Phyllanthus amarus*, *Derris scandens*, *Rhinacanthus nasutus*, *Santalum album*, *Duranta repens*, *Houttuynia cordata*, *Gossypium herbaceum*, *Caesalpinia sappan*, *Homalomena aromatica*, *Loranthus pentandrus*, and *Phyllanthus emblica*, respectively. In addition,  $IC_{50}$  of *Litchi chinensis* was over 2000  $\mu\text{g/ml}$ . All of crude extracts exhibited selectivity index more than 1.

When partitioned with hexane, chloroform, ethyl acetate, and butanol, the butanol extract of *Derris scandens*, hexane extract of *Rhinacanthus nasutus* and *Santalum album* were exhibited the lowest  $IC_{50}$  in each plant. *Derris scandens* and *Rhinacanthus nasutus* were partially purified with chromatographic methods. Eluate of these medicinal plant extracts were investigated for  $IC_{50}$ ,  $CC_{50}$ , SI, and chromatogram on TLC.

These medicinal plant extracts were expected to contain anti-HBV compounds and should be further studied for a new anti-HBV herb or drug in the future.