CHAPTER VII

CONCLUSION

The investigation of chemical constituents in the stem bark of *C. oblongifolius* Roxb. from Sakolnakorn Province, was carried out by solvent extraction using hexane, ethyl acetate and methanol, respectively.

The hexane crude extract of this plant was separated by column chromatography using hexane–ethyl acetate gradient system, giving two cembrane diterpenoids: crotocembraneic acid **(1)** (0.282 g) and neocrotocembraneic acid **(2)** (0.115 g), one clerodane diterpenoid:(-)-20-benzyloxyhardwikiic acid **(4)** (0.512 g), one sinapyl alcohol : 3-(3,5-dimethoxy-4-hydroxy phenyl) propanyl benzoate or benzoyl 2,3 dihydrosyringenin **(5)** (0.257 g) which was found for the first time in *C. oblongifolius* and one halimane diterpenoid : crotohalimaneic acid **(3)** (8.78 g).

The isolated compounds were tested for their cytotoxicity activity against 5 cell lines. From the result, crotohalimaneic acid (3) and 3-(3,5-dimethoxy-4-hydroxy phenyl) propanyl benzoate (5) have high activity against 5 cancer cell lines; Hep-G2 (hepatoma), SW620 (colon), Chago (lung), Kato-3 (gastric) and BT474 (breast) with the % survival of 15, 14, 17, 12 and 42 %, respectively, for compound 3 and 24, 8, 9, 10 and 31%, respectively, for compound 5. Whilst compound 1, 2 and 4 showed moderate cytotoxicity against some human cancer cell lines.