

## CHAPTER V

### CONCLUSION

In this study, three secondary metabolites were isolated from the ethyl acetate extract of fermentation broth from endophytic fungus, *Phomopsis* sp. AANN8 by antileukemic-guided fractionation. The endophytic fungus was isolated from the Thai medicinal plant, *Artemisia annua* L. (family Asteraceae). After the structure elucidation, the isolated compounds were identified as a dicarboxylic compound, succinic acid, a phenolic compound, tyrosol and a mixture of two diastereomers *O*-1-(2-hydroperoxy-1,2-dimethylethyl)-*O*-1'-(mercaptoethyl-*S*-oxide)-peroxocarbonate. The isolated compounds were evaluated for *in vitro* antileukemic activity against THP-1 cell line. The results showed that succinic acid and tyrosol had no antileukemic activity. However, *O*-1-(2-hydroperoxy-1,2-dimethylethyl)-*O*-1'-(mercaptoethyl-*S*-oxide)-peroxocarbonate exhibited weak antileukemic activity with  $EC_{50}$  131  $\mu$ M and ellipticine was used as positive control with  $EC_{50}$  79  $\mu$ M.

