

CHAPTER V

CONCLUSION

Leukemia is a cancer of blood cells. The overexpressions of Bcr/Abl, WT1, and FLT3 proteins play a role in leukemogenesis. This study demonstrated the effect of *M. siamensis* flower extracts, including crude EtOH extract and fractional extracts (Hex, EtOAc, and MeOH fractions) on cell cytotoxicity and protein target markers (Bcr/Abl, WT1, and FLT3) in leukemic cell line models (Molt4, K562, and EoL-1 cells). The effect of *M. siamensis* flower crude extract and fractional extracts are presented as follows:

1. The Hex fraction exhibited the strongest cytotoxic effect in Molt4, K562, and EoL-1 cell lines, followed by crude EtOH extract and EtOAc fraction, whereas MeOH fraction did not show cytotoxic activity in all three cell lines.
2. Non-cytotoxic doses of Hex fraction had the inhibitory effect on Bcr/Abl, WT1, and FLT3 protein levels by a time- and dose-dependent manner and decreased total cell number by decreasing cell proliferation in Molt4, K562, and EoL-1 cell lines.
3. The mammea E/BB was suspected the main active compound dissolved in *M. siamensis* flower Hex fraction.
4. The inhibitory mechanisms of active compounds in Hex fraction of *M. siamensis* flowers on Bcr/Abl, WT1, and FLT3 proteins are still not clear. This finding may be used for an important guideline for further studies in the future.