

Abstract

Fungi are prolific sources of novel and biologically active compounds. At the Centre of Excellent for Fungal Research at Mae Fah Luang University, we held more than 500 fungal and mushroom isolates in our collection. Of these isolates, some are novel species and some are already been described. Nevertheless, most of these isolates have not been examined for their secondary metabolites production.

A study was concerned on secondary metabolites production mainly on 35 fungal isolates from genus *Chaetomium* sp., *Xylaria* sp., *Alternaria* sp., *Collectotrichum* sp., *Diaporthe* sp., *Phomopsis* sp. and *Pestalotiopsis* sp. A total of 70 crude extracts were obtained. Of these, 42 culture extracts of these fungus species showed significant activity at least in the antimicrobial (AM) quick screen assay.

Of these active extracts, one from *Diaporthe pterocarpi* showed good antibacterial activities against many bacteria. This extract was subjected to pure compound isolation and three main compounds were subsequently isolated. The ^1H spectrum showed that one of the three main compounds could be an unsaturated fatty acid and other two compounds were subjected for further analysis.

Keywords: Ascomycota, antimicrobial screening, *Diaporthe* sp., *Phomopsis* sp., resazurin testing.