

Title: Inhibitory effects of compounds from Zingiberaceae species on platelet activating factor receptor binding

Abstract

Ten compounds isolated from *Alpinia mutica* Roxb, *Curcuma xanthorrhiza* Roxb. and *Kaempferia rotunda* Linn. (Family: Zingiberaceae) were investigated for their platelet-activating factor (PAF) antagonistic activities on rabbit platelets using ^3H -PAF as a ligand. Among them, four compounds showed significant inhibitory effects. Alpinetin and 5,6-dehydrokawain isolated from *A. mutica* exhibited IC_{50} values of 41.6 and 59.3 μm , respectively. The IC_{50} values of 3-deacetylcrotopoxide and 2-hydroxy-4, 4',6'-trimethoxychalcone from *K. rotunda* were 45.6 and 57.4 μM , respectively. 1-Methoxy-2-methyl-5- (1', 5'-dimethylhex-4'-enyl)-benzene, synthesized by methylation of xanthorrhizol which was obtained from *C. xanthorrhiza*, showed an IC_{50} value of 40.9 μm . The results indicated that these compounds were relatively strong PAF receptor binding inhibitors