

Bioassay-guided isolation of a potent platelet-activating factor antagonist alkenylresorcinol from *Ardisia elliptica*

ABSTRACT

In the course of our search for novel platelet-activating factor (PAF) antagonists from medicinal plants, the methanol extract of the leaves of *Ardisia elliptica* Thunb. was investigated for its inhibitory effects on PAF receptor binding to rabbit platelets using ³H-PAF as a ligand. The methanol extract showed inhibitory activity of 53.9% and its ethyl acetate, n-butanol, and methanol fractions exhibited 48.6%, 39.0%, and 22.0% inhibition, respectively. Bioassay-guided fractionation of the ethyl acetate fraction led to the isolation of a new alkenylresorcinol, 5-(Z-heptadec-4-enyl)resorcinol, together with 5-pentadecylresorcinol. The alkenylresorcinol showed a strong inhibition with an IC₅₀ value of 7.1 μM. The structures of the compounds were elucidated by spectroscopic techniques.

Keyword: Alkenylresorcinol; *Ardisia elliptica*; Bioassay-guided; Platelets; Platelet-activating factor antagonists