

Phthalides from *Pittosporum illicioides* var. *illicioides* with inhibitory activity on superoxide generation and elastase release by neutrophils.

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Abstract

Six new phthalides, (S)-3-ethyl-7-hydroxy-6-methoxyphthalide (1), (S)-3-ethyl-7-hydroxy-5,6-dimethoxyphthalide (2), (S)-3-ethyl-5,6,7-trimethoxyphthalide (3), (R)-3-ethyl-7-hydroxy-6-methoxyphthalide (4), (Z)-3-ethylidene-7-hydroxy-6-methoxyphthalide (5), and (Z)-3-ethylidene-6,7-dimethoxyphthalide (6), have been isolated from the root of *Pittosporum illicioides* var. *illicioides*, together with seven known compounds. The structures of these new compounds were determined through spectroscopic and MS analyses. Compounds 1-4 exhibited inhibition ($IC_{50} \leq 29.8 \mu\text{M}$) of superoxide anion generation by human neutrophils in response to formyl-L-methionyl-L-leucyl-L-phenylalanine/cytochalasin B (fMLP/CB). Compounds 5 and 6 inhibited fMLP/CB-induced elastase release with IC_{50} values of 38.6 ± 4.3 and $33.9 \pm 3.9 \mu\text{M}$, respectively.