

New Biphenyl from the Stem Bark of *Magnolia officinalis*

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The stem bark of *Magnolia officinalis* Rehd. et Wils. (Magnoliaceae) has been used as a traditional medicine for the treatment of gastrointestinal disorders, bronchitis, and emphysema, in China, Taiwan, Japan, and Korea. Chemical studies have revealed a variety of neo-lignans and alkaloids as constituents of this plant. Many of these compounds exhibit central depressant effect, muscle relaxation, and antigastric ulcer, antibacterial, antiallergic, vasorelaxant, and neurotrophic activities. Investigation on EtOAc-soluble fraction of the stem bark of *M. officinalis* has led to the isolation of a new biphenyl, 5-allyl-5'-(1-hydroxyallyloxy)biphenyl-2,2-diol (**1**), together with 9 known compounds, including four neolignans, magnolol (**2**), honokiol (**3**), (–)-monoterpenylmagnolol (**4**), and randainal (**5**), a norlignan, magnaldehyde D (**6**), and four steroids, β -sitostenone (**7**), stigmasta-4,22-dien-3-one (**8**), β -sitosterol (**9**), and stigmasterol (**10**). The structure of new compound **1** was determined through spectroscopic and MS analyses. Among the isolates, magnolol (**2**) and honokiol (**3**) exhibited potent inhibition against fMLP-induced superoxide production with IC₅₀ value of 4.42 ± 0.24 and 0.88 ± 0.20 $\mu\text{g/mL}$, respectively. In addition, magnolol (**2**) inhibited fMLP/CB-induced elastase release with an IC₅₀ values of 1.45 ± 0.20 $\mu\text{g/mL}$.