E-E2-39

Phenolic Compounds Isolated from the Fruit Body of *Phellinus linteus*

Ha-Na Lyu[1], Jin-Gyeong Cho[1], Min-Kyung Lee[1], Dae-Young Lee[1], Youn-Hyung Lee[2], In-Ho Kim[3] and Nam-In Baek[1*]

[1]Graduate School of Biotechnology, Kyung Hee University, [2]Department of Horticultural Biotechnology, Kyung Hee University, [3]Korea Food Research Institute

Phellinus linteus, a well-known fungus of the genus *Phellinus* in the family of Hymenochaetaceae, is distributed mainly in Asia, tropical America and north Africa. *P. linteus* has been used as a traditional oriental medicine in Korea and Japan, for the treatment of various diseases, including arthritis of the knee, oral ulcer, gastroenteric disorder, lymphatic disease and various cancers. It was also reported that *P. linteus* has the biological effect of being anti-cancer, anti-tumor, anti-angiogenic, anti-mutagenic, anti-oxidant, and immune activities.

On the continuing study to search for pharmacological active compounds from the natural sources, the fruiting body of *P. linteus* was extracted with 80% aqueous MeOH, and the concentrated extract was partitioned with EtOAc, *n*-BuOH and H_2O, successively. The repeated silica gel and ODS column chromatographies of the EtOAc and *n*-BuOH fractions led to isolation of four phenolic compounds. From the result of spectroscopic data including NMR, MS and IR, the chemical structures of the compounds were determined as 4-(4-hydroxyphenyl)-3-buten-2-one (**1**), 2-(3',4'-dihydroxyphenyl) -1,3-benzodioxole-5-aldehyde (**2**), 4-(3,4-dihydroxyphenyl)-3-buten-2-one (**3**), 3,4-dihydroxybenzaldehyde (**4**). Compounds **1**～**3** have been first isolated from *P. linteus* in this study.

*corresponding author : Tel. 031-201-2661, e-mail : nibaek@khu.ac.kr

E-E2-40

Isolation of Secondary Metabolites from the Kalopanacis Cortex

Ha-Na Lyu[1], Ho-Young Kwak[1], Ji-Hae Pak[1], Kyung-Tai Kim[2] Eun-Mi Ahn[3] and Nam-In Baek[1*]

[1]Graduate School of Biotechnology, Kyung Hee University, [2]Division of Molecular and Life Science, Pohang University of Science and Technology, [3]Daegu Hanny University

Kalopanacis Cortex is the stem bark of *Kalopanax pictum* Nakai in the family of Araliaceae, which is distributed mainly in Korea. It has been used as a traditional Korean medicine for the remedies of paralysis, arthritis, anti-rheumatis, neuralgia, lumbago, antidiabetes and tonic. It was also reported that Kalopanacis Cortex has the biological effect of being anti-inflammatory effect and anti-lipid peroxidative activity.

On the continuing study to search for anti-cancer compounds, Kalopanacis Cortex, the EtOH extracts of which showed significant anti-cancer activity, was extracted with 80% aqueous EtOH. And the concentrated extract was partitioned with EtOAc, n-BuOH and H_2O, successively. The repeated silica gel and ODS column chromatographies of the EtOAc fraction led to isolation of three single compounds. From the result of spectroscopic data including NMR, MS and IR, the chemical structures of the compounds were determined. The isolated compounds will be evaluated for the VRK1(vaccinia related kinase 1) kinase inhibition activity.

*corresponding author : Tel. 031-201-2661, e-mail: nibaek@khu.ac.kr