Received: August 2, 2011 Accepted: August 31, 2011

Steroid Saponins and Other Constituents from the Rhizome of *Trillium tschonoskii* Maxim and Their Cytotoxic Activity

Wanshun ZHAO ^{1,2}, Wenyuan GAO ^{1*}, Jinchao WEI ², Ying WANG ², Luqi HUANG ³ & Peigen XIAO ⁴

 School of Pharmaceutical Science and Technology, Tianjin University, Tianjin 300072, P. R. China
School of Chinese Medicine, Tianjin University of Traditional Chinese Medicine, Tianjin 300193, P. R. China

³ Institute of Chinese Materia Medica, China Academy of Chinese Medicinal Science, Beijing 100700, P. R. China

⁴ Institute of Medicinal Plant Development, Chinese Acdemy of Medical Science & Peking Union Medical College Beijing 100094, P. R. China

SUMMARY. Fourteen compounds were isolated from the rhizome of Trillium tschonoskii Maxim. By spectroscopic analysis, these compounds were established as Gracillin (1), Paris saponins V (2), Paris saponins VI (3), Paris saponins H (4), Paris saponins VII (5), (25R)-17α-hydroxy-5-en-3-O-a-L-arabinofuranosyl-(1 \rightarrow 2)-β-D-glucopyranoside (6), (25R)-26-[β-D-glucopyanosyl]-17α,22β-dihydroxy-5-en-3-O-a-L-rhamnopyranosyl-(1 \rightarrow 2)-β-D-glucopyranoside (7), Kaempferol-3-O-β-D-rutinoside (8), Quercetin (9), Quercetin-3-O-β-D-galactoside (10), Daucosterol (11), Stigmasterol-3-O-β-D-glucopyranoside (12), 3, 5-Di-O-caffeoyl quinic acid (13), and n-Hexadecanoic acid (14). By GC-MS analysis of the CH₂Cl₂ extract from Trillium tschonoskii Maxim, twenty compouns were identified, representing 91 % of the area. The cytotoxicity of compounds 1-14 on mouse A549 cells were evaluated.

KEY WORDS: Cytotoxicity, GC-MS, Steroid saponin, Trillium tschonoskii Maxim.

1702 ISSN 0326-2383

^{*}Author to whom correspondence should be addressed. E-mail: biochemgao@hotmail.com