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Iridoid and Phenylethanoid Glycosides from Verbascum lasianthum

Zeliha Ş. AKDEMİR[1], İ. İrem TATLI[1],
Erdal BEDİR[2], Ikhlas A. KHAN[2]
[1]Hacettepe University, Faculty of Pharmacy, Department of Pharmacognosy, TR-06100, Ankara-TURKEY
e-mail: zakdemir@hacettepe.edu.tr
[2]The University of Mississippi, School of Pharmacy, National Center for Natural Products Research, Research Institute of Pharmaceutical Sciences, University MS 38677 USA

Abstract: Three iridoid glucosides, 8-O-acethylharpagide (1), harpagoside (2), and 6-O-vanilloylajugol (3), were isolated from the roots of Verbascum lasianthum Boiss. ex Bentham. In addition, 2 phenylethanoid glycosides, verbascoside {=acteoside, [β -(3,4-dihydroxyphenyl)-ethyl]-(3' -O-α -L-rhamnopyranosyl)-(4' -O-caffeoyl)-β -D-glucopyranoside} (4) and poliumoside {= [β -(3,4-dihydroxyphenyl)-ethyl]-(3',6' -O-α -L-dirhamnopyranosyl)-(4' -O-caffeoyl)-β -D-glucopyranoside} (5), were also isolated. The structures of all compounds were established by spectroscopic evidence (UV, IR, 1D and 2D NMR, LC-ESIMS). Compounds 2-5 demonstrated scavenging properties toward the 2,2-diphenyl-1-picrylhydrazyl (DPPH) radical in TLC autographic assays.

Key Words: Verbascum lasianthum, Scrophulariaceae, iridoid glucosides, 8-O-acethylharpagide, harpagoside, 6-O-vanilloylajugol, phenylethanoid glycosides, verbascoside (= acteoside), poliumoside, radical scavenging activity

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