Urgineaglyceride A: A New Monoacylglycerol from the Egyptian Drimia maritima Bulbs

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Abstract:

One new compound, (2S)-1-O-(Z)-tetracos-6-enoate glycerol (1) named urgineaglyceride A, along with six known compounds, 3,5,7,3',5'-pentahydroxydihydroflavonol (2), stigmasterol (3), (25S)-5-furostane-3-22-26-triol (4), scillaridin A (5), (2S)-(+)-2-hydroxynaringenin-4'-O--D-glucopyranoside (6) and quercetin-3'-O--Dglucopyranoside (7), were isolated from the EtOAc fraction of Drimia maritima (L.) Stearn bulbs. Their structures were secured based on their IR, UV, 1D and 2D NMR data, in addition to HR-MS data and comparison with the literature data. The isolated compounds were evaluated for their in vitro growth inhibitory activity against A549 non-small cell lung cancer (NSCLC), U373 glioblastoma (GBM) and PC-3 prostate cancer cell lines. Compounds 2 and 3 displayed variable activities against the tested cancer cell lines. Compound 2 was a selective inhibitor of the NSCLC cell line with an IC50 of 2.3 μM, whereas 3 was selective against GBM with IC50 of 0.5 μM and against PC-3 with 2.0 μM.

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