A new acylated flavonol from the aerial parts of *Asteriscus maritimus* (L.) Less (Asteraceae)

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Abstract

Phytochemical investigation of the flowering aerial parts of *Asteriscus maritimus* (L.) Less (Asteraceae) led to the isolation of a new compound; patuletin 7-O-\(\beta\)-D-[(2''\(^\prime\)S) 6''(3''\(^\prime\)-hydroxy-2''\(^\prime\)-methyl-propanoyl)] glucopyranoside, together with five known metabolites; \(\beta\) –sitosterol 2, chlorogenic acid 3, P-hydroxy -methylbenzoate 4, luteolin 5 and protocatechuic acid 6. The structures of the isolated compounds were determined by comprehensive analyses of its 1D and 2D NMR, HRMS and comparison with previously known analogues. The ethanolic extract of the flowering aerial parts of *A. maritimus* was found to be safe (LD\(_{50}\) = 4.6 mg/kg) and possess significant anti-oxidant and anti-inflammatory activities and this was in accordance with its high phenolic content (107.36 ± 0.051 mg GAE/g extract).

Keywords:

* Asteriscus maritimus*, acylated flavonol, anti-oxidant, anti-inflammatory.
Fig. S1. HRESI-Ms

Fig. S2. $^1$H NMR
Fig. S3. $^{13}$C NMR

Fig. S4. HMQC
Fig. S5. HMBC
Fig. S6. HMBC correlations H- C of compound 1.