

A177 Flavonol-glycosides from *Anthyllis barba-jovis*L. Pistelli, G. Scapecchi and C. Noccioli

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Anthyllis barba-jovis L. (Leguminosae) is a perennial shrub with woody branches, silver sericeous leaves and pale-yellow flowers in terminal heads. It's an indigenous plant in the Mediterranean area, where it grows on the steep cliffs near the sea (1,2).

Some species of this genus are used as natural dyes and in traditional medicine as astringent and cicatrizing remedies (3,4). Several species of this genus have been chemically investigated, giving aliphatic and aromatic acids, terpenoids, steroids, carbohydrates and especially flavonoids, but they are no phytochemical reports on *A. barba-jovis* (5).

As a part of our work on isolation and identification of constituents of Italian Leguminosae plants, the aerial parts of *A. barba-jovis*, collected on the coasts near Livorno (Italy) in April 1999, were investigated. Air-dried plant material was extracted in a Soxhlet apparatus with *n*-hexane, chloroform and methanol in order. The chromatographic analysis of the chloroformic extract led to the isolation of two coumarins, scopoletin and scoparone. From the methanolic extract were obtained a novel flavonol-triglycoside, named barba-jovine (kaempferol 3-O-(β -D-glucopyranosyl(1 \rightarrow 2)- α -L-rhamnopyranosyl)-7-O- α -L-rhamnopyranoside), together with five known flavonols and D-pinitol, a taxonomic marker of Leguminosae family. The structural elucidation of all compounds was based on their ^1H and ^{13}C -NMR spectral data, bidimensional experiments and confirmed by MS analysis.

References: 1. Pignatti S., (1982), Flora d'Italia, vol. I, Ed. Edagricole, Bologna, 750-755. 2. Tutin G. T., (1972), Flora Europea, University Press, Cambridge, 178. 3. Le Rudulier D. Goas, (1982), Z. Pflanzenphysiol., 105: 417. 4. Font Quer P., (1982), Plantas Medicinales, Ed. Labor, S. A., Barcelona, 370. 5. Southon I.W., ILDIS-CHCD, (1994), Phytochemical Dictionary of the Leguminosae, Bisby F.A., Buckingham J., Harborne J.B., Eds. Chapman & Hall, London, 1: 73-77.

A178 Six new sesquiterpenes from a Taiwanese Gorgonian coral *Subergorgia suberosa*Jyh-Horng Sheu^a, Guey-Horng Wang^a, Atallah F. Ahmed^{a,b}

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In the course of our study of biologically active secondary metabolites from marine organisms, we have undertaken the chemical investigation of a gorgonian coral *Subergorgia suberosa*. The study has led to the isolation of four new caryophyllene-type sesquiterpenes, suberosols A-D (**1-4**), and two new subergane-based sesquiterpenes, subergorgiol (**5**) and 2 β -acetoxysubergorgic acid (**6**). Metabolite **3** was shown to exhibit significant activity against the growth of the P-388 (murine lymphocytic leukaemia) and HT-29 (human colon adenocarcinoma) cancer cells with ED₅₀ of 2.1 and 2.3 $\mu\text{g}/\text{mL}$, respectively. Also, sesquiterpene **4** has been found to display significant cytotoxicity toward P-388 and HT-29 cells with ED₅₀ of 3.3 and 3.8 $\mu\text{g}/\text{mL}$, respectively.

