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SAPOGENINS OF Eryngium macrocalyx

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Continuing a study of plants of the genus Eryngium L. (eryngo), we have isolated the total saponins from the roots of E. macrocalyx Schrenk. We used the procedure employed for isolating the saponins from the roots of E. octophyllum Eug. Kor. [1].

Acid hydrolysis of the saponins isolated gave the combined sapogenins. The sapogenins were separated on a column of silica gel, from which they were eluted with a mixture of chloroform and ethyl acetate with a gradient of increasing concentrations of ethanol (from 1 to 10%). Two substances were obtained in the individual state. The first substance (mol. wt. 572), from its Rf values [0.58 in chloroform—ethyl acetate (2:1); 0.50 in benzene—chloroform—methanol (3:3:0.5); 0.67 in chloroform—methanol (11:1)] and melting point (220-223°C), the melting point of its acetate (113-116°C), its IR spectrum, and a mixed melting point, was identical with eryngiumgenin A, which we have isolated previously from E. octophyllum [2].

The second substance was identified on the basis of its R_f values, melting point, melting point of its acetate, and mass and IR spectra as oleanolid acid.

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