

Antineoplastic 31-Norcycloartanones from *Solanum cernuum* Vell.

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Z. Naturforsch. **63c**, 507–514 (2008); received January 18/March 3, 2008

Triterpenoids with 31-norcycloartanone structure were isolated for the first time from the *Solanum* genus. Cycloeucalenone and 24-oxo-31-norcycloartanone were the main constituents of the dichloromethane extract of *Solanum cernuum* Vell. leaves [7% (w/w) and 1.47% (w/w)]. Both triterpenoids were tested against human tumour cell lines, and 24-oxo-31-norcycloartanone was significantly active and selective against the lung tumour cell line NCI-H460 with total growth inhibition at 1.10 µg/mL, growth inhibition 50 at 0.19 µg/mL and lethal concentration 50 at 8.43 µg/mL, while cycloeucalenone showed poor activity. A homologous series of alkanes (C₂₅–C₃₄), β-sitosterol, and the xanthophyll lutein were also identified. The antiulcer activity was assayed for the dichloromethane extract. In the gastric ulcer model induced by 95% ethanol, administration of 500, 1000 and 2000 mg/kg/*po* dichloromethane extract gave ulcer lesion indices of, respectively, 38.2, 61.0 and 81.9%, while carbenoxolone inhibited 88.9% at 200 mg/kg. In the gastric ulcer model induced by indomethacin the dichloromethane extract showed a small percentage of lesion inhibition. The ethanol extract was also analyzed and was mainly composed of glycoalkaloids, peptides and disaccharides.

Key words: *Solanum cernuum* Vell., 31-Norcycloartanones, Antineoplastic Activity