

# Biological activities and metabolites from *Trevoa trinervis* Miers

Delporte, Carla L.

Backhouse, C. Nadine

Erazo, Silvia

Negrete, Rosa E.

Silva, Carolina

Hess, Andrés

Muñoz, Orlando

García-Grávalos, M. Dolores

San Feliciano, Arturo

Chilean folklore medicine uses *Trevoa trinervis* Miers. (Rhamnaceae), 'trevo', for the treatment of inflammation caused by wounds and burns. The antiinflammatory and antipyretic activities of crude methanol, aqueous and successive hexane, dichloromethane, methanol extracts of the aerial part were studied. The fractionation of the most potent extract (dichloromethane), led to the isolation of the pentacyclic triterpenoids betulinic (the major metabolite), oleanolic and ursolic acids, along with  $\beta$ -sitosterol. Evaluation of the acute oral toxicity of the crude methanol extract showed it to be nontoxic. The crude methanol and the aqueous extracts were assayed for their antineoplastic activity against P-388 murine leukaemia, A-549 human lung carcinoma and HT-29 colon carcinoma showing no activity. Betulinic acid was also assayed showing some activity against the neoplastic cell lines, but only residual activity against Mel-28 melanoma cells.