

Topical anti-inflammatory activity of 2 β -hydroxy pentacyclic triterpene acids from the leaves of *Ugni molinae*

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Leaf extracts of *Ugni molinae* Turcz. are used in the Chilean cosmetic industry on the assumption that they have decongestant, regenerative, and anti-aging properties. A bioassay-guided fractionation of this plant material showed that some extracts have potent anti-inflammatory activities. Further fractionation led to the isolation and identification of betulinic acid, a mixture of ursolic and oleanolic acids, and the 2 β -hydroxy derivatives alphitolic, asiatic, and corosolic acids. The latter three were evaluated in vivo in the mouse ear assay for their topical anti-inflammatory activity, inducing inflammation with either arachidonic acid (AA) or 12-O-tetradecanoylphorbol-13 acetate (TPA). Only corosolic acid was active in the AA assay, with similar potency to nimesulide, but all three triterpene acids inhibited TPA-induced inflammation with potencies comparable to that of indomethacin. © 2006 Elsevier Ltd. All rights reserved.