

XANTHINE OXIDASE INHIBITORY ACTIVITY OF NORTH ALGERIA PLANT

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Abstract

Xanthine oxidase activity was tested from 31 species belonging to 8 families traditionally used for the treatment of symptoms related to gout by autochthons peoples of north Algeria. The variation of activity was determined by measuring the increase in absorbance at 295 nm associated with urate formation. Ninety three percent of the assayed plants were found to have inhibitory activity at 165? g/ml, with 35% having greater than 50% inhibition. *Mallus sylvestris* exhibited the highest activity with an inhibition of 72.88%.

The inverse representation namely Lineweaver-Burk plots showed that the inhibition mode of the species with the highest activity was a combination of a linear mixed-type, uncompetitive and incompetitive. Inhibitory activity of the plants correlated significantly with their phenolic content ($r = 0.68$ $P < 0.01$) and tannin content ($r = 0.83$ $P < 0.001$)

Keywords: Xanthine oxidase, inhibitor, Gout, North Africa, Phenols, Medicinal plants, *Ficus carica*, *Mallus sylvestris*, *Olea europea*