

Coumarins of haplopappus multifolius and derivative as inhibitors of lox: Evaluation in-vitro and docking studies

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Several natural compounds containing a coumarin moiety have been reported. They have multiple biological activities, e. g. , as scavengers of reactive oxygen species (ROS) and to reduce the inflammatory processes by inhibition of enzymes like COX or LOX. A study was made of the inhibitory capacity of seven natural coumarins and one derivative of esculetin, against soybean 15-lipoxygenase (15-sLOX). The studied coumarins showed interesting degrees of inhibition compared to quercetin, a known LOX inhibitor. Docking studies of some compounds into the binding site of 15-sLOX and 5-hLOX were also made.