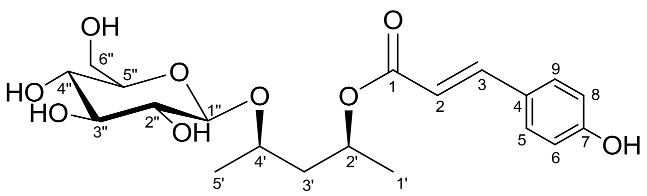
Abstract

Bilberry (*Vaccinium myrtillus* L., Ericaceae), also known as European blueberry, has a long history in European folk medicine of being widely used in the form of fruits, tinctures, teas and other herbal formulas for the treatment of diarrhoea, circulatory diseases, eye conditions, inflammation and diabetes. Unlike the berry's fruits, the other vegetative organs have attracted much less attention. This PhD thesis was interested in stemps and leaves of *Vaccinium myrtillus.*

Successive fractionation of the MeOH extract of *Vaccinium myrtillus* stems and leaves furnished 20 isolated compounds, including two new 2,4-pentanediol coumarates, (*E*)-(*2S*,*4R*)-4-(β-D-glucopyranosyloxy)-pent-2-yl-p-coumarate **1** and its aglycone **2**, new triterpenoid 3β,12β-dihydroxyolean-28→13-olid **3** and 17 known compounds: 2,4- pentanediol glucoside, α-amyrin, β-amyrin, oleanolic acid, ursolic acid, glutinol, β- sitosterol, β- sitosterolglucoside, α- tocoferol, methyl-α-D-fructofuranoside, methyl-β-D-fructofuranoside, methyl-β-D-fructopyranoside, saccharose, 2-deoxy-D-ribono-1,4-lactone, myo-inositol, quercetin and monotropein, whose structures were elucidated by comparing their physical and NMR data with those reported in the literature.



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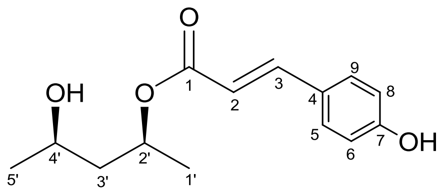

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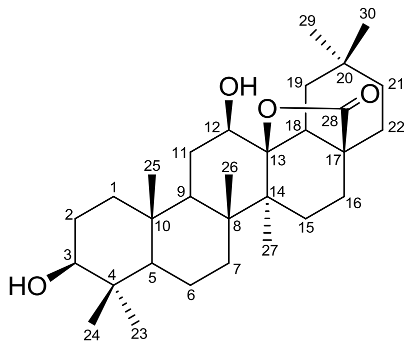

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