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Determination of antioxidant activity and phenolic profile of *Paliurus spina-christi* P. Mill.

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Paliurus spina-christi P. Mill. (Rhamnaceae), also known as “Christ's thorn, Karaçalı or Çaltı”, is a perennial thorny shrub of widespread distribution in dry and rocky places in the Mediterranean region and Asia, and the unique species of the genus *Paliurus* represented in Anatolia. Christ's thorn is used as a diuretic, against diarrhoea and rheumatism in traditional Turkish herbal medicine. The aim of this study was to determine the antioxidant activity and phenolic profile of *Paliurus spina-christi*.

For this purpose plant materials were collected from Eskişehir:Bozdağ in Turkey on August 2015. Powdered dried fruits were macerated with methanol at 25 °C for 24h. After evaporation and lyofilization steps the extract was analyzed with ABsciex 3200 Q trap LC-MS/MS system.

Catechin hydrate, proanthocyanidin B dimer, naringenin-C-diglycoside, 5-caffeoylquinic acid 5-*p*-coumaroylquinic acid, rutin, quercetin hexoside and quercetin were found as major compounds. Extract presented strong antioxidant activity with the score of DPPH IC50=0.062 mg/ml. IC 50 of BHT was determined 0,054 mg/ml. Total phenolic content of the extract was found as same 109.54 mgGAE in 1gr extract.

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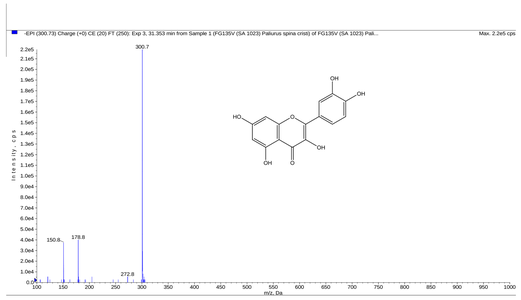
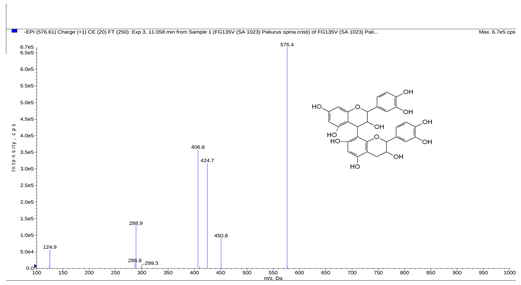


Quercetin

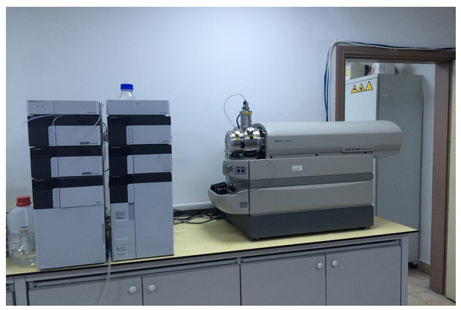
Paliurus spina-christi P. Mill.



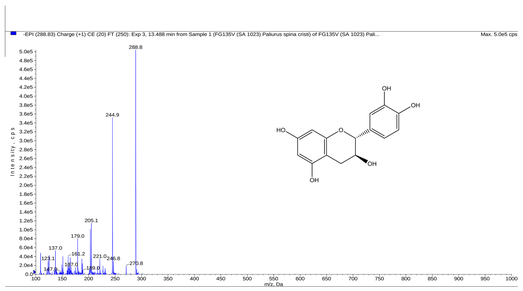
B type proanthocyanidin

Paliurus spina-christi P. Mill.

Paliurus spina-christi P. Mill.

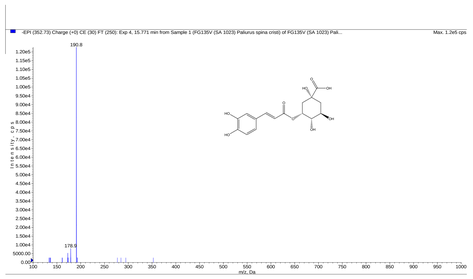


LC-MS/MS system

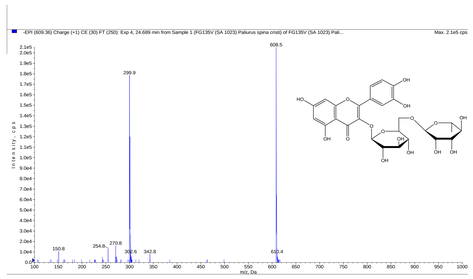


Catechin

Paliurus spina-christi P. Mill.



5-Caffeoylquinic acid (30 Ev)



Rutin

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