



PHENOLIC COMPOUNDS CONTENT AND ANTIOXIDANT
ACTIVITY OF COMMANDARIA

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2014

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in vitro
DPPH, ABTS FRAP.

765 1519 mg /L.

Abstract

Commandaria is sweet red wine produced exclusively in Cyprus from sun-dried Xynisteri and Mavro grapes. The most common winemaking technique involves the fortification of fermented wine alcohol in order to interrupt the fermentation. The aim of the present study was to study for the first time the phenolic compounds and antioxidant activity of Commandaria, the only Cypriot wine with designation of origin. In particular, we measured the chromatic parameters (density and hue), we determined and classified the total phenolic compounds to the hydroxycinnamates and flavonols. Total anthocyanins were also quantified. Additionally, the *in vitro* antioxidant activity of Commandaria was determined by DPPH, ABTS and FRAP assays.

A great diversity of color density and hue was found for Commandaria. Total phenolic compounds ranged from 765 to 1519 mg gallic acid/ L, while hydroxycinnamates and flavonols contents were significantly lower. In addition, fortified Commandaria wines had higher amounts of hydroxycinnamates and flavonols than non-fortified wines. All antioxidant capacity assays demonstrated that Commandaria presented strong antioxidant potency due to its high phenolic content. Overall, Commandaria, an amber-coloured sweet dessert wine, could be considered a significant source of natural antioxidants. Finally, the concentrations of hydroxycinnamates and flavonols are maybe critical factor to divide fortified and non-fortified Commandaria wines.