

ÖZET/ABSTRACT

Bu çalışmada, Bartın ilinin Serdar Köyü mevkiinde doğal olarak yetişen İzabella Üzümü (*Vitis labrusca* L.) meyveleri taze halde, dış ortamda kurutulmuş ve etüvde kurutulmuş olmak üzere 3 farklı örnek kullanılmıştır. İzabella Üzümü (*Vitis labrusca* L.)'nın fenolik bileşenleri HPLC yöntemiyle belirlenmiştir. Toplam Fenolik Madde Miktarı tayini Folin-Ciocalteu Ayırıcı (FCR) ile tespit edilmiştir. *V. labrusca* bitkisinin antioksidan özellikleri DPPH Serbest Radikali Giderim Aktivitesi Yöntemi uygulanarak belirlenmiştir. Dış ortamda kurutulmuş *V. labrusca* meyvesine ait fenolik bileşen analizi sonucunda p-hidroksibenzoik asit (1.133 mg/L), benzoik asit (0.571 mg/L), protokateşik asit (0.323 mg/L), gallik asit (1.343 mg/L), rosmarinik asit (1.065 mg/L), siringaldehit (0.272 mg/L), trans-Ferulik asit (1.222 mg/L) ve vitamin C (15.191 mg/L) fenolik bileşenler tespit edilmiştir. Etüvde kurutulmuş *V. labrusca* meyvesine ait fenolik bileşen analizi sonucunda p-Hidroksibenzoik asit (1.161 mg/L), benzoik asit (0.353 mg/L), protokateşik asit (0.231 mg/L), gallik asit (1.102 mg/L), rosmarinik asit (1.062 mg/L), siringaldehit (0.253 mg/L), trans-Ferulik asit (1.382 mg/L), kateşin (1.532 mg/L) ve vitamin C (15.160 mg/L) fenolik bileşenler tespit edilmiştir. Taze haldeki *V. labrusca* meyvesine ait fenolik bileşen analizi sonucunda p-Hidroksibenzoik asit (0.006 mg/L), benzoik asit (0.329 mg/L), protokateşik asit (0.239 mg/L), gallik asit (1.002 mg/L), rosmarinik asit (1.054 mg/L), siringaldehit (0.250 mg/L), trans-Ferulik asit (1.243 mg/L) ve vitamin C (11.205 mg/L) olarak tespit edilmiştir. *V. labrusca* ekstreğinde yapılan analizler sonucunda en yüksek resveratrol miktarı taze halde (1.625 mg/L), en düşük resveratrol miktarı etüvde kurutulmuş örneklerde (0.289 mg/L) tespit edilmiştir. Gallik asit eşdeğer alınarak Folin-Ciocalteu yöntemi kullanılarak yapılan çalışmada toplam fenolik madde miktarı en yüksek 62.686 ± 8.26 mg GAE/g olarak etüvde kurutulmuş meyvelerde, en düşük 34.781 ± 0.73 mg GAE/g olarak taze haldeki meyvelerde tespit edilmiştir. Antioksidan yüzde inhibisyon değerleri; Dış ortamda kurutulmuş örneklerde ait 50 µg/ml'de %40.98, 100 µg/ml'de % 47.52, 250 µg/ml'de %49.41, 500 µg/ml'de % 50.58 ve 1000 µg/ml'de % 51.74 olarak tespit edilmiştir. Etüvde kurutulmuş örneklerde ait 50 µg/ml'de % 45.05, 100 µg/ml'de % 53.48, 250 µg/ml'de %55.23, 500 µg/ml'de %56.10 ve 1000 µg/ml'de % 56.83 olarak tespit edilmiştir. Taze haldeki örneklerde ait 50 µg/ml'de %51.30, 100 µg/ml'de % 57.84, 250 µg/ml'de %60.17, 500 µg/ml'de %61.48 ve 1000 µg/ml'de % 62.93 olarak tespit edilmiştir. Bu çalışmada sonuç olarak; İzabella Üzümü (*Vitis labrusca* L.)'nın fenolik bileşenleri ve antioksidan özellikleri belirlenmiş olup, sağlık alanında (tıp, eczacılık vb.) kullanımının artırılması hedeflenmiştir. *V. labrusca* Türkiye ekonomisine katkı sağlama potansiyeli olan ve ticari yetiştiriciliği yapılması gereken bir türdür.

In this study, three different samples, fresh, oven dried and air dried Isabel grape (*Vitis labrusca* L.) growing naturally in Serdar village of Bartın province were used. The phenolic compounds of Isabel grape (*Vitis labrusca* L.) were determined using HPLC method. Total phenol content determination has been identified with Folin-Ciocalteu Reagent (FCR). Antioxidant properties of *V. labrusca* were determined through free radical scavenging Removal Activity. As a result of phenolic compound analysis of air dried Isabel grape (*Vitis labrusca* L.) fruit samples, p-hydroxybenzoic acid (1.133 mg/L), benzoic acid (0.571 mg/L), protocatechuic acid (0.323 mg/L), Gallic acid (1.343 mg/L), rosmarinic acid (1.065 mg/L), siring aldehyde (0.272 mg/L), trans-Ferulic acid (1.222 mg/L) and vitamin C (15.191 mg/L) phenolic compounds were found. And as a result of phenolic compound analysis of oven dried Isabel grape (*Vitis labrusca* L.) fruit sample, p-hydroxybenzoic acid (1.161 mg/L), benzoic acid (0.353 mg/L), protocatechuic acid (0.231 mg/L), gallic acid (1.102 mg/L), rosmarinic acid (1.062 mg/L), siring aldehyde (0.253 mg/L), trans-Ferulic acid (1.382 mg/L), catechin (1.532 mg/L) and vitamin C (15.160 mg/L) phenolic compounds were identified. And as a result of phenolic compound analysis of fresh Isabel grape (*Vitis labrusca* L.) fruit samples, p-hydroxybenzoic acid (0.006 mg/L), benzoic acid (0.329 mg/L), protocatechuic acid (0.239 mg/L), gallic acid (1.002 mg/L), rosmarinic acid (1.054 mg/L), siring aldehyde (0.250 mg/L), trans-Ferulic acid (1.243 mg/L) and vitamin C (11.205 mg/L) phenolic compounds were found. As a result of analyses in *V. labrusca* extract, highest amount of resveratrol was found in fresh samples (1.625 mg/L), whilst the lowest amounts of resveratrol was found in oven dried *V. labrusca* samples (0.289 mg/L). The highest amount of total phenolic compound was found in oven dried fruit samples (62.686 ± 8.26 mg GAE/g), while the lowest amount of total phenolic compounds was found in fresh fruit samples (34.781 ± 0.73 mg GAE/g) in this study which was carried out using Folin-Ciocalteu method (gallic acid equivalent). Antioxidant % inhibition amounts of air dry grape samples in 50 µg/ml-%40.98, in 100 µg/ml-% 47.52, in 250 µg/ml-%49.41, in 500 µg/ml-% 50.58 and in 1000 µg/ml-% 51.74 were determined. Oven dry grape samples antioxidant % inhibition amounts in 50 µg/ml-% 45.05, in 100 µg/ml-% 53.48, in 250 µg/ml-%55.23, in 500 µg/ml-%56.10 and in 1000 µg/ml-% 56.83 were determined. Antioxidant % inhibition amounts were found as 40.98% in 50 µg/ml in air dried samples; 47.52% in 100 µg/ml, and 49.41% in 250 µg/ml, 50.58% in 500 µg/ml and % 51.74% in 1000 µg/ml. And the same amounts for oven dried samples were % 45.05 in 50 µg/ml, 53.48% in 100 µg/ml, 55.23% in 250 µg/ml, 56.10% in 500 µg/ml and 56.83% in 1000 µg/ml; while it was 51.30% in 50 µg/ml, % 57.84 in 100 µg/ml, %60.17 in 250 µg/ml, %61.48 in 500 µg/ml and % 62.93 in 1000 µg/ml in fresh fruit samples. As a result, phenolic compounds and antioxidant properties of Isabel grape (*Vitis labrusca* L.) were determined in the current study and the aim of doing that to increase the use of the fruit in health (medicine, pharmacy, etc.). *V. labrusca* is a fruit which has a potential to contribute to Turkey's economy and is a plant that needs to be grown as a commercial product.