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ANTIOXIDANT AND ANTIMICROBIAL ACTIVITY OF MESPILUS GERMANICA (L).

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**Abstract**

*Mespilus germanica* L. which has an edible fruit is a medicinal plant whose therapeutic effects have historically been emphasized. In this study, we determined antioxidant capacities of methanolic extracts obtained from *M. germanica* fruits and seeds by using DPPH assay and Folin-Ciocalteu method. It was revealed that the total phenolic contents of methanolic extracts of *M. germanica* seeds (22.94 mgGAE/g extract) were higher than *M. germanica* fruits (4.67 mgGAE/g extract). Also, the seed extract (9.33 mgTE/g extract) exhibited stronger free radical scavenging activity in DPPH assay as compared to fruit extract (6.67 mgTE/g extract). Moreover, we determined antimicrobial activity of methanolic extract obtained from *M. germanica* fruits and seeds against 16 different bacteria by the microdilution method. While the extract of *M. germanica* obtained from seeds used in study did not have any effects against bacteria, it was shown that the fruit extract was effective against five bacteria in 32 mg/ml concentration and against eleven bacteria in 64 mg/ml concentration. Our findings could provide a starting point for further studies on *M. germanica*.

**Keywords:** *Mespilus germanica*, Antioxidant, Antimicrobial, Free Radical Scavenging, Phenolic Contents.