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**Antiradical, antiacetylcholinesterase, antibutrylcholinesterase and anticarbonic anhydrase properties of olivetol (5-n-amyresorcinol)****Parham Taslimi, İlhami Gulcin**

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Olivetol is a pioneer in diverse syntheses of tetrahydrocannabinol (THC). a type of insects, which used as a pheromone, antiseptic or repellent, produces 5-Pentylresorcinol. In this study, we evaluated the antioxidant properties of olivetol in vitro using various procedures. These; Fe<sup>3+</sup>-Fe<sup>2+</sup>reducing, Cu<sup>2+</sup>-Cu<sup>+</sup> reducing, Fe<sup>3+</sup>-TPTZ reducing, DPPH• scavenging, ABTS•+ scavenging, DMPD•+ scavenging, super oxide scavenging, Fe<sup>2+</sup> chelating. The IC<sub>50</sub> values of the olivetol in the DPPH•, ABTS•+, DMPD•+, O<sub>2</sub>- and metal chelating assays were 17.77, 1.94,

19.25, 53.30, 2.83 µg•mL<sup>-1</sup>, respectively. In this paper, Olivetol compound showed excellent inhibitory effects against human (h) carbonic anhydrase (CA) isoforms I and II, acetylcholine esterase (AChE), and butyrylcholinesterase (BChE). For Olivetol which had Ki value of 88.05±11.15 nM against hCA I 178.27±35.94 nM against hCA II, respectively. On the other hand, the Ki value was found of 3.40±0.34 nM against AChE and 2.73±0.18 nM against BChE, respectively.

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