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Inhibition effects of Tarragon (*Artemisia dracunculus* L.) extracts and its metabolites against the Carbonic anhydrase I and II isozymes

Tuba Aydin[1], **Bayram Yurtvermez**[1], **Ahmet Cakir**[2], **Murat Senturk**[1] and **Caviz Kazaz**[3]
[1]Agri Ibrahim Cecen University, Turkey
[2]Kilis 7 Aralik University, Turkey
[3]Ataturk University, Turkey

Tarragon, *Artemisia dracunculus L.* is a small shrub and perennial plant species. It spreads in Japan, India, Iran, Europe, North America and China. The plant has several medicinal properties. It used in making vinegar and salad. In this study, five metabolites were isolated from dichloromethane extract from tarragon and their the chemical structure was characterized as anethole (1), β-stigmasterol (2), herniarin (3), (2E,4E)-N-isobutylundeca-2,4-dien-8,10-diynamide (4) and (2E,4E)-1-(piperidin-1-yl)undeca-2,4-diene-8,10-diyn-1-one (5) by IR, 1D and 2D NMR spectroscopic methods. Enzyme inhibition activities of ethanol, dichloromethane, n-hexane and methanol extracts of *A. dracunculus L.* and all of the pure metabolites were investigated against human carbonic anhydrase I and II isoenzymes. Enzyme inhibition effects of the extracts and pure metabolites were evaluated by comparison of their IC50 values for the first time in this study. Our results showed that the extracts and the pure compounds of *A. dracunculus L.* were found to be strong inhibitor against the human carbonic anhydrase I and II isoenzymes. The compounds and extracts were showed in the range of 8.65-486.2 μM of IC50 values for Carbonic anhydrase I and II.

Biography

Tuba Aydin is currently working as an Assistant Professor in the Faculty of Pharmacy at the Agri Ibrahim Cecen University, Turkey where she has been a faculty member since 2013. She completed her PhD at Ataturk University, Turkey. She has expertise in isolation and characterization of phytochemicals from natural products.

aydintuba25@gmail.com

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