


## PP67. SCREENING FOR ANTIOXIDANT AND ANTI-INFLAMMATORY ACTIVITIES OF EXTRACT AND FRACTIONS OF *ALLIUM SUBHIRSUTUM* AND DETECTION OF BIOACTIVE SECONDARY METABOLITES, FRACTIONS

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The study material of our project\*, *Allium subhirsutum* is known as wild garlic. It contains valuable compounds such as polyphenols, vitamins, flavonoids, carotenoids and carbohydrates. Among the studies on the plant phytochemical content, there are some studies on MeOH and EtOH extracts of the plant to determine which known compounds it contains using techniques such as Liquid chromatography Mass Spectroscopy HR-LCMS and LC-DAD-MS. In vitro antioxidant, anticancer, anti-inflammatory, and antimicrobial activities of MeOH extract and in vivo wound healing activities of MeOH and oil extract were also investigated. As a result of the literature survey about the plant, we see no study about natural compound isolation on *A. subhirsutum*. Therefore we planned to obtain pure secondary compounds from the plant, determine their antioxidant properties with the DPPH method, and measure their anti-inflammatory activities with egg albumin and Lipoxigenase inhibition methods in our study.

According to in vitro antioxidant activity data, we found AC as the most antioxidant-active extract, PAW1 which is an AW fraction, the most antioxidant-active fraction, and PAC6, a secondary metabolite from AC, as the most antioxidant-active compound. When we evaluated and compared the anti-inflammatory data between egg albumin and Lipoxigenase inhibition assays, we determined AB as the most anti-inflammatory extract, PAW2, which is an AW fraction, as the most anti-inflammatory-active fraction, PAC1, which is a secondary metabolite isolated from AC, as the most anti-inflammatory-active compound for both assays. Continuing the research, we will elucidate the structure of active secondary metabolites with NMR and mass spectroscopic methods. The active fractions will be purified and tested for their antioxidant and anti-inflammatory capacity using the same techniques.

**Keywords:** *Allium subhirsutum*, DPPH, egg albumin denaturation, Lipoxigenase inhibition assay, chromatography

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