



Preparation and Evaluation of a Novel Organogel Formulation of *Salvia tomentosa* Mill. Essential Oil

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SUMMARY. *Salvia* species have been mainly studied for essential oils; among them *Salvia tomentosa* Mill. has been commonly used for various activities. Finding novel formulations for application of essential oils has been a concern of the field. In this study, organogels of essential oil of *Salvia tomentosa* have been investigated with a novel preparation method. The uniformity, antibacterial, antifungal activity and antioxidant properties of *Salvia tomentosa* essential oil and its organogel formulation were evaluated. According to the results, it can be stated that formulation in C974 organogels was successfully prepared very fast with PEG 400 under microwave irradiation. The NMR and GC/MS studies confirmed the unchanged structure of essential oil. TEAC and antimicrobial activity studies showed the efficiency in the organogels. Formulation prepared can be used for antimicrobial and antioxidant purposes in topical drug delivery. The suggested method is suitable for scale-up and a process like that should be time and energy saving.

KEY WORDS: Antimicrobial activity, Essential oil, GC GC/MS analysis, Organogel formulation, *Salvia tomentosa*, TEAC activity.

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