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Pharmacological and Therapeutic Potential of Origanum Majorana: A Comprehensive Review

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Abstract: Sweet marjoram (Origanum majorana) is a pleasant-smelling perennial herb from the mint family. It is mainly grown in Mediterranean countries and also in many other places, including India. For a very long time, people have used it not only as a flavorful kitchen herb but also as a natural remedy. In traditional medicine, it is commonly used to help with digestion problems, breathing issues, heart troubles, joint pain, and disorders related to the nerves. Scientific studies show that sweet marjoram contains many beneficial natural chemicals, especially essential oils. These oils are rich in compounds like carvacrol, thymol, linalool, terpineol, and eugenol, which are responsible for its strong aroma and many of its health benefits. Advanced laboratory studies have also discovered some unique compounds in this plant, including 1H-indole-2-carboxylic acid, lariciresol, isolariciresol, and procumboside B. Procumboside B is especially important because it shows strong effects on the immune system. It helps activate immune cells by increasing the production of substances like nitric oxide and certain immune signals, and it also improves the surface activity of specific immune markers on macrophages. These actions are linked to its effect on important immune signaling pathways in the body. In modern medicine, sweet marjoram has been found to show many helpful properties, such as reducing inflammation, protecting the liver, fighting microbes, helping control blood sugar, supporting heart health, protecting against tumors, reducing anxiety, improving digestion, and helping wounds heal faster. Nutritionally, it is a rich source of vitamins and minerals like beta-carotene, vitamin A, iron, lutein, zeaxanthin, and folate. These nutrients contribute to its antioxidant effects and may help in improving hemoglobin levels. Overall, sweet marjoram is more than just a culinary herb. It is a powerful natural plant with strong health-boosting and immune-supporting properties. Its wide range of benefits supports its importance in traditional medicine and shows its potential for future use in modern healthcare and natural medicine.

Keywords: Origanum majorana Linn, Aromatic perennial herb, Essential oil–rich plant, Glycosides, Volatile oils, Antioxidant compounds, Antidiabetic potential Anticancer potential





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