

Supporting Information

Rec. Nat. Prod. 17:4 (2023) 628-647

Chemical Components of *Thymbra spicata* subsp. *spicata* L. Essential Oil and Its *In Vitro* Physiological Effects on Human Origin Cell Lines

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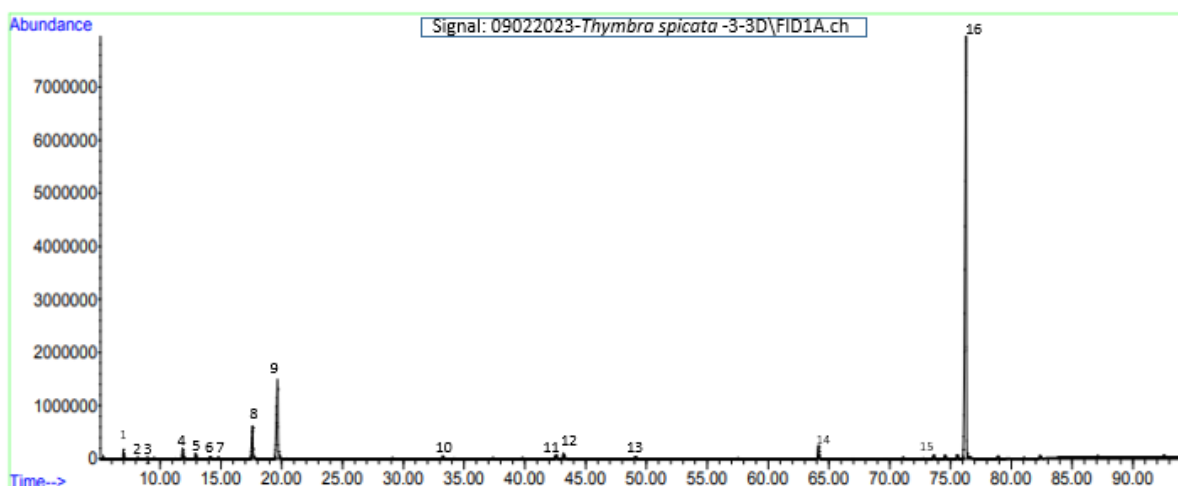


Figure S1. Total ion chromatogram of *Thymbra spicata* subsp. *spicata* L. essential oil major compounds. 1: α -Pinene, 2: Camphene, 3: β -Pinene, 4: Myrcene, 5: α -Terpinene, 6: Limonene, 7: β -Phellandrene 8: γ -Terpinene, 9: *p*-Cymene, 10: 1-Octen-3-ol, 11: Caryophyllene, 12: 4-Terpineol, 13: Borneol, 14: Caryophyllene oxide, 15: Thymol, 16: Carvacrol.

S1: Morphology of *Thymbra spicata* subsp. *spicata* L.

T. spicata subsp. *spicata* is up to 10-40 cm, shrub. Simple leafy flowering branches; unequally long-ciliated bracteoles have longer hairs up to 1-1.5 mm. Leaves; linear to linear lanceolate in shape, obtuse, glabrous or sparsely ciliate towards base. Typically dense inflorescence is oval to oblong-attenuate, 1-10 cm length. Bracts lanceolate, typically short-ciliated. Bracteoles similar in appearance but acute-acuminate, densely long-ciliated, purple, and 1.5-2 times longer than the calyx. The calyx is 4-6 mm long, purplish-brown, and deciduous in fruit. Corolla purple, 12-16 mm, glandular-punctate, mauve or pink in color. Flowering time is june and july (1).

S2: Anatomy of *Thymbra spicata* subsp. *spicata* L.

In cross-sections of the stem, there are the epidermis and peridermis. Covering trichomes are simple, 1-4 celled and thick-walled. Under the epidermis there are the irregularly shaped collenchyma tissues, which have five to six layers of rectangular cells. Under collenchyma lies the three to four-layered compressed parenchyma tissue. The parenchyma tissue contains lyzigenous cavities. A leaf's epidermis is made up of cells that are oval and rectangular. Lower and radiating walls are thinner than upper walls. A thin cuticle covers the epidermis. The epidermis features flat walls on both faces in surface sections. Covering trichome has 1 or 2 cells. 1-celled covering trichome is conical in shape. On both sides, the peltate trichomes are thick. The stomatas are diasitic and hygromorphic. Vascular bundle is encircled by a parenchymatous sheath in cross-section. Under the upper epiderma, there are 1-2 layers of collenchyma tissue, and there are 2-5 layers of collenchyma tissue under the lower epiderma. The calyx's outer epidermis is made up of compressed cells that are ovoid on the veins. In comparison to the radiating walls, the top and lower walls are thicker. The cuticle is a thin layer. The cells of the inner epidermis are long and cylindrical. Cell lumens are narrow and

cell walls have thickened. Crystals are present in the cells that face the calyx's inner sides. Compared to the outer epidermis, the cuticle is thicker in the inner epidermis. While the inner epidermis is glabrous, the outer epidermis is hairy. Covering trichomes are present in the calyx's veins on both sides. Glandular hairs have a one-celled head and a two to three-celled stalk. Peltate glandular hairs are another feature. Multicellular hairs cover the neck of the calyx. Under the outer epidermis, there are 2-3 layers of ovoid parenchyma cells (2, 3). Kaya and Ayanoglu studied by using a single plant selection procedure with the 213 distinct, mature, and healthy plants from 68 different sites. The quantity of oil glands per unit area and the diameters of the oil glands in the leaves were measured. It was discovered that some plants with low essential oil ratios also have low oil grease number and oil gland diameter. It would be reasonable to assess these results as preliminary knowledge along with upcoming research on ontogenetic variability researches (4).

References

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