A new cytotoxic sesquiterpene and three anti-inflammatory flavonoids of the Egyptian Tanacetum santolinoides.

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Abstract:

A re-investigation of the methanolic extract of the aerial parts of Tanacetum santolinoides has resulted in the isolation of a new sesquiterpene, tanacetonic acid (1), along with three known methoxylated flavonoids. The structure of the isolated compounds was secured based on their IR, UV, 1D and 2D (1H-1H COSY, HSQC and HMBC) NMR spectroscopic and FAB mass spectral characteristics. The new sesquiterpene showed a significant cytotoxic activity when tested using the brine shrimp bioassay,while the three flavonoids demonstrated anti-inflammatory effects in the rat paw oedema test.

Keywords:

Tanacetum santolinoides, Asteraceae, sesquiterpene, brine shrimp bioassay, flavonoids, anti-inflammatory

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