

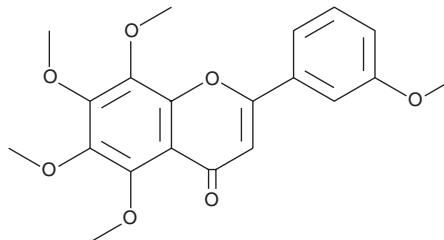
# PRODUCT INFORMATION



## Tangeretin

Item No. 10009911

**CAS Registry No.:** 481-53-8  
**Formal Name:** 5,6,7,8-tetramethoxy-2-(4-methoxyphenyl)-4H-1-benzopyran-4-one  
**Synonyms:** NSC 53909, NSC 618905, Ponkanetin, Tangeretin  
**MF:** C<sub>20</sub>H<sub>20</sub>O<sub>7</sub>  
**FW:** 372.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 272, 322 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Tangeretin is supplied as a crystalline solid. A stock solution may be made by dissolving the tangeretin in the solvent of choice, which should be purged with an inert gas. Tangeretin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of Tangeretin in these solvents is approximately 0.5, 10, and 20 mg/ml, respectively.

Tangeretin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, tangeretin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Tangeretin has a solubility of approximately 0.15 mg/ml in a 1:5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Tangeretin is a polymethoxylated flavone isolated from peels of citrus fruits. It inhibits signaling in cancer cells, reducing ERK phosphorylation and growth of estradiol-stimulated T47D breast cancer cells (IC<sub>50</sub> ~ 3 μM)<sup>1</sup> and blocking p38 MAPK, JNK, and Akt activation in interleukin-1β-stimulated human lung carcinoma A549 cells.<sup>2</sup> Tangeretin activates the pregnane X receptor, inducing MDR1 expression in human colonic LS180 cancer cells at a concentration of 10 μM.<sup>3</sup> It also inhibits growth of tumors and tumor implantation in lungs of mice inoculated with murine melanoma B16F10 cells.<sup>4</sup> Tangeretin has been shown to protect against tunicamycin-induced cell death in isolated murine insulinoma MIN6 cells and in renal tubular epithelium in mice at a concentration of 10 μM.<sup>5</sup> More recently, tangeretin has been found to significantly reduce serum total and LDL cholesterol and triacylglycerols in hypercholesteremic hamsters.<sup>6</sup>

### References

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2. Chen, K.H., Weng, M.S., and Lin, J.K. *Biochem. Pharmacol.* **73(2)**, 215-227 (2007).
3. Satsu, H., Hiura, Y., Mochizuki, K., *et al.* *J. Agric. Food Chem.* **56(13)**, 5366-5373 (2008).
4. Conesa, C.M., Ortega, V.V., Gascón, M.J.Y., *et al.* *J. Agric. Food Chem.* **53(17)**, 6791-6797 (2005).
5. Takano, K., Tabata, Y., Kitao, Y., *et al.* *Am. J. Physiol. Cell Physiol.* **292(1)**, C353-C361 (2007).
6. Kurowska, E.M. and Manthey, J.A. *J. Agric. Food Chem.* **52(10)**, 2879-2886 (2004).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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