Tangeritin
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
MF: C37H29O7
FW: 572.4
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid

Laboratory Procedures
For long term storage, we suggest that tangeritin be stored as supplied at -20°C. It should be stable for at least two years.

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

Tangeritin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, tangeritin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Tangeritin 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.

Tangeritin 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 (IC50 ~ 3 μM)1 and blocking p38 MAPK, JNK, and Akt activation in interleukin-1β-stimulated human lung carcinoma A549 cells.2 Tangeritin activates the pregnane X receptor, inducing MDR1 expression in human colon cancer LS180 cells at a concentration of 10 μM.3 It also inhibits growth of tumors and tumor implantation in lungs of mice inoculated with murine melanoma B16F10 cells.4 Tangeritin has been shown to prevent against tunicamycin-induced cell death in isolated murine insulinoma MIN6 cells and in renal tubular epithelium in mice at a concentration of 10 μM.5 More recently, tangeritin has been found to significantly reduce serum total and LDL cholesterol and triacylglycerols in hypercholesterolemic hamsters.6

References

Related Product
SP 600125 - Item No. 10010466

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

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Cayman Chemical Company, 10/03/2011