PRODUCT INFORMATION

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: C_{20}H_{20}O_{7}
FW: 372.4
Purity: ≥98%
UV/Vis.: \( \lambda_{\text{max}} \): 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

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

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.

Description

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 (IC_{50} ~ 3 \mu M)^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 colonic LS180 cancer cells at a concentration of 10 \mu M.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 protect against tunicamycin-induced cell death in isolated murine insulinoma MIN6 cells and in renal tubular epithelium in mice at a concentration of 10 \mu M.5 More recently, tangeritin has been found to significantly reduce serum total and LDL cholesterol and triacylglycerols in hypercholesteremic hamsters.6

References