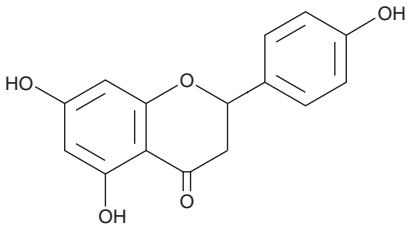
PRODUCT INFORMATION

Naringenin

Item No. 14173

CAS Registry No.: 67604-48-2
Formal Name: 2,3-dihydro-5,7-dihydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one
Synonyms: S-Dihydrogenistein, NSC 11855, NSC 34875, Salipurol
MF: $C_{15}H_{12}O_5$
FW: 272.3
Purity: ≥98%
UV/Vis.: λ_{max}: 213, 225, 289 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

Naringenin is supplied as a crystalline solid. A stock solution may be made by dissolving the naringenin in the solvent of choice. Naringenin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of naringenin in these solvents is approximately 2.5, 5, and 10 mg/ml, respectively.

Naringenin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, naringenin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Naringenin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Naringenin is a citrus-derived flavonoid that inhibits CYP3A4 activity in human liver microsomes (IC_{50}s = 139-188 µM).[1,2] At 100 mg/kg/day, naringenin selectively inhibits the transcription of Smad3 and directly down-regulates TGF-β1, significantly reducing lung metastasis in mice with bleomycin-induced pulmonary fibrosis.[3] Naringenin demonstrates both lipid lowering and insulin-like properties in low-density lipoprotein (LDL) receptor-deficient mice fed a Western diet containing 1-3% naringenin by correcting VLDL overproduction, ameliorating hepatic steatosis, and attenuating dyslipidemia without affecting caloric intake or fat absorption.[4]

References

1. Fuhr, U., Klittich, K., and Staib, A.H. *Br. J. Clin. Pharmacol.* **35(4)**, 431-436 (1993).
2. Ho, P.-C. and Saville, D.J. *J. Pharm. Pharm. Sci.* **4(3)**, 217-227 (2001).
3. Du, G., Jin, L., Han, X., *et al. Cancer Res.* **69**, 3205-3212 (2009).
4. Mulvihill, E.E., Allister, E.M., Sutherland, B.G., *et al*. *Diabetes* **58**, 2198-2210 (2009).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM