

# 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, Salipurool

**MF:** C<sub>15</sub>H<sub>12</sub>O<sub>5</sub>

**FW:** 272.3

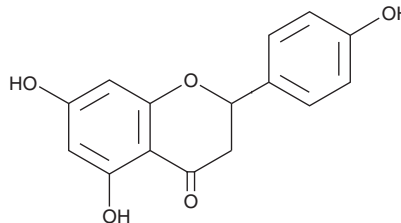
**Purity:** ≥98%

**UV/Vis.:** λ<sub>max</sub>: 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<sub>50</sub>s = 139-188 μM).<sup>1,2</sup> 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.<sup>3</sup> 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.<sup>4</sup>

### 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).

#### 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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