Naringin
Item No. 17923

CAS Registry No.: 10236-47-2
Formal Name: (2S)-7-[[2-O-(6-deoxy-α-L-mannopyranosyl)-β-D-glucopyranosyl]oxy]-2,3-dihydro-5-hydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one

Synonym: NSC 5548
MF: C_{27}H_{32}O_{14}
FW: 580.5
Purity: ≥ 95%
UV/Vis.: \( \lambda_{\text{max}}: 214, 226, 283, 329 \text{ nm} \)
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

Naringin is supplied as a crystalline solid. A stock solution may be made by dissolving the naringin in the solvent of choice, which should be purged with an inert gas. Naringin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of naringin in these solvents is approximately 1, 10, and 20 mg/ml, respectively.

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

Naringin is a natural flavanone glycoside formed from naringenin and neohesperidose. It undergoes extensive metabolism in the liver, giving rise to naringenin and other bioactive metabolites that have anti-oxidant, anti-inflammatory, and anti-apoptotic effects.\(^1\) Naringin is a weak inhibitor of CYP3A4, providing 14% inhibition at 200 \( \mu \text{M} \).\(^2\) It suppresses apoptosis in neurons and increases the expression of neurotrophic factor in dopaminergic neurons, providing neuroprotection.\(^3\)

References