# **PRODUCT** INFORMATION



## Naringin

Item No. 17923

CAS Registry No.: Formal Name:	$\begin{array}{l} 10236\text{-}47\text{-}2\\ (2S)\text{-}7\text{-}[[2\text{-}O\text{-}(6\text{-}deoxy\text{-}\alpha\text{-}L\text{-}\\ mannopyranosyl)\text{-}\beta\text{-}D\text{-}glucopyranosyl]\\ oxy]\text{-}2,3\text{-}dihydro\text{-}5\text{-}hydroxy\text{-}2\text{-}(4\text{-}\\ hydroxyphenyl)\text{-}4\text{H}\text{-}1\text{-}benzopyran\text{-}4\text{-}one \end{array}$	но
Synonym:	NSC 5548	
MF:	$C_{27}H_{32}O_{14}$	
FW:	580.5	
Purity:	≥95%	
UV/Vis.:	λ <sub>max</sub> : 214, 226, 283, 329 nm	HO
Supplied as:	A crystalline solid	
Storage:	-20°C	OH
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.<sup>1</sup> Naringin is a weak inhibitor of CYP3A4, providing 14% inhibition at 200  $\mu$ M.<sup>2</sup> It suppresses apoptosis in neurons and increases the expression of neurotrophic factor in dopaminergic neurons, providing neuroprotection.<sup>3</sup>

#### References

- 1. Bharti, S., Rani, N., Krishnamurthy, B., et al. Preclinical evidence for the pharmacological actions of naringin: A review. Planta Med. 80(6), 437-451 (2014).
- 2. Ho, P.C. and Saville, D.J. Inhibition of human CYP3A4 activity by grapefruit flavonoids, furanocoumarins and related compounds. J. Pharm. Pharm. Sci. 4(3), 217-227 (2001).
- 3. Jung, U.J., Leem, E., and Kim, S.R. Naringin: A protector of the nigrostriatal dopaminergic projection. Exp. Neurobiol. 23(2), 124-129 (2014).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFFTY 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.

#### WARRANTY AND LIMITATION OF REMEDY

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