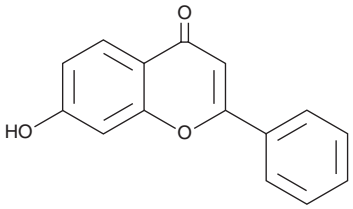
PRODUCT INFORMATION

7-Hydroxyflavone

Item No. 36071

CAS Registry No.:	6665-86-7
Formal Name:	7-hydroxy-2-phenyl-4H-1-benzopyran-4-one
Synonyms:	NSC 94258, 7-hydroxy-2-Phenylchromone
MF:	$C_{15}H_{10}O_3$
FW:	238.2
Purity:	≥95%
UV/Vis.:	λ_{max}: 249, 308 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Synthetic



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

7-Hydroxyflavone is supplied as a solid. A stock solution may be made by dissolving the 7-hydroxyflavone in the solvent of choice, which should be purged with an inert gas. 7-Hydroxyflavone is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of 7-hydroxyflavone in these solvents is approximately 10 mg/ml.

Description

7-Hydroxyflavone is a synthetic flavonoid that has diverse biological activities.[1-4] It inhibits enterovirus 71 (EV71) replication in infected RD cells (EC_{50} = 19.95 µM).[1] 7-Hydroxyflavone (20 µM) reduces nicotine-induced production of reactive oxygen species (ROS) and cytotoxicity in NRK-52E cells.[2] It inhibits LPS-induced production of nitric oxide (NO), prostaglandin E_2 (PGE_2; Item No. 14010), TNF-α, and IL-6 in RAW 264.7 cells.[3] *In vivo*, 7-hydroxyflavone reduces acetic acid-induced writhing in mice (ED_{50} = 125 mg/kg).[4]

References

1. Wang, J., Su, H., Zhang, T., *et al*. Inhibition of enterovirus 71 replication by 7-hydroxyflavone and diisopropyl-flavon7-yl phosphate. *PLoS One* **9(3)**, e92565 (2014).
2. Sengupta, B., Sahihi, M., Dehkhodaei, M., *et al*. Differential roles of 3-hydroxyflavone and 7-hydroxyflavone against nicotine-induced oxidative stress in rat renal proximal tubule cells. *PLoS One* **12(6)**, e0179777 (2014).
3. Jin, Z., Yang, Y.-Z., Chen, J.-X., *et al*. Inhibition of pro-inflammatory mediators in RAW264.7 cells by 7-hydroxyflavone and 7,8-dihydroxyflavone. *J. Pharm. Pharmacol.* **69(7)**, 865-874 (2017).
4. Thirugnanasambantham, P., Viswanathan, S., Mythirayee, C., *et al*. Analgesic activity of certain flavone derivatives: A structure-activity study. *J. Ethnaopharmacol.* **28(2)**, 207-214 (1990).

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