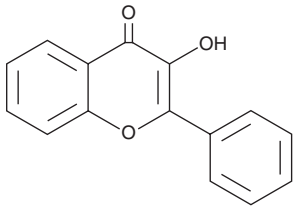
PRODUCT INFORMATION

3-Hydroxyflavone

Item No. 35333

CAS Registry No.:	577-85-5
Formal Name:	3-hydroxy-2-phenyl-4H-1-benzopyran-4-one
Synonyms:	Flavon-3-ol, Flavonol, NSC 57653, NSC 58585, NSC 58586, NSC 58587
MF:	$C_{15}H_{10}O_3$
FW:	238.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 239, 306, 344 nm
Supplied as:	A 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

3-Hydroxyflavone is supplied as a solid. A stock solution may be made by dissolving the 3-hydroxyflavone in the solvent of choice, which should be purged with an inert gas. 3-Hydroxyflavone is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml.

Description

3-Hydroxyflavone is a synthetic flavonol.[1] It reduces nicotine-induced cytotoxicity and production of reactive oxygen species (ROS) in NRK-52E cells when used at a concentration of 20 µM. 3-Hydroxyflavone (30 and 50 µM) inhibits the motility of U2OS, and the invasiveness of 143B, osteosarcoma cells.[2] It reduces tumor growth in a 143B mouse xenograft model when administered at doses of 10 and 20 mg/kg and reduces the formation of pulmonary metastases in a 143B mouse model of metastasis at 20 mg/kg. 3-Hydroxyflavone also reduces acetic acid-induced writhing in mice (ED_{50} = 55 mg/kg).[3]

References

1. 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).
2. Lu, K.-H., Chen, P.-N., Hsieh, Y.-H., *et al.* 3-Hydroxyflavone inhibits human osteosarcoma U2OS and 143B cells metastasis by affecting EMT and repressing u-PA/MMP-2 via FAK-Src to MEK/ERK and RhoA/MLC2 pathways and reduces 143B tumor growth *in vivo*. *Food Chem. Toxicol.* **97**, 177-186 (2016).
3. Thirugnanasambantham, P., Viswanathan, S., Mythirayee, C., *et al.* Analgesic activity of certain flavone derivatives: A structure-activity study. *J. Ethnopharmacol.* **28(2)**, 207-214 (1990).

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