

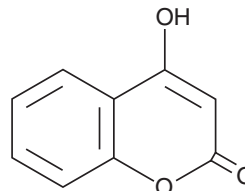
PRODUCT INFORMATION



4-Hydroxycoumarin

Item No. 33568

CAS Registry No.: 1076-38-6
Formal Name: 4-hydroxy-2H-1-benzopyran-2-one
Synonyms: Benzotetronic Acid, 4-Coumarinol, NSC 11889
MF: C₉H₆O₃
FW: 162.1
Purity: ≥98%
UV/Vis.: λ_{max}: 213, 269, 280, 305 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

4-Hydroxycoumarin is supplied as a crystalline solid. A stock solution may be made by dissolving the 4-hydroxycoumarin in the solvent of choice, which should be purged with an inert gas. 4-Hydroxycoumarin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 4-hydroxycoumarin in these solvents is approximately 30 mg/ml.

4-Hydroxycoumarin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 4-hydroxycoumarin should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 4-Hydroxycoumarin has a solubility of approximately 0.16 mg/ml in a 1:5 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

4-Hydroxycoumarin is a coumarin that has been found in *C. corniculatus*.¹ It inhibits vitamin K₁ (Item No. 21051) epoxidation and prothrombin synthesis by 18 and 67%, respectively, in cell-free assays when used at a concentration of 6.2 mM.² 4-Hydroxycoumarin has been used in the synthesis of anticoagulants, as well as antithrombotic, anti-inflammatory, antibacterial, and antifungal agents.^{3,4}

References

1. Vickery, M. and Vickery, B. Coumarins and related compounds in members of the Connaraceae. *Toxicol. Lett.* **5(2)**, 115-118 (1980).
2. Bell, R.G. and Stark, P. Inhibition of prothrombin synthesis and epoxidation of vitamin K₁ by anticoagulants *in vitro*. *Biochem. Biophys. Res. Commun.* **72(2)**, 619-625 (1976).
3. Jung, J.-C. and Park, O.-S. Synthetic approaches and biological activities of 4-hydroxycoumarin derivatives. *Molecules* **14(11)**, 4790-4803 (2009).
4. Chohan, Z.H., Shaikh, A.U., Rauf, A., *et al.* Antibacterial, antifungal and cytotoxic properties of novel N-substituted sulfonamides from 4-hydroxycoumarin. *J. Enzyme Inhib. Med. Chem.* **21(6)**, 741-748 (2006).

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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