

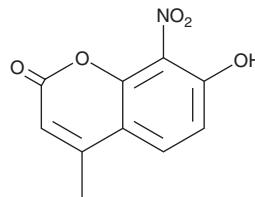
# PRODUCT INFORMATION



## 7-Hydroxy-4-methyl-8-nitrocoumarin

Item No. 30900

**CAS Registry No.:** 19037-69-5  
**Formal Name:** 7-hydroxy-4-methyl-8-nitro-2H-1-benzopyran-2-one  
**Synonyms:** 4-methyl-8-nitro-Umbelliferone, NSC 382373  
**MF:** C<sub>10</sub>H<sub>7</sub>NO<sub>5</sub>  
**FW:** 221.2  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 215, 319 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

7-Hydroxy-4-methyl-8-nitrocoumarin is supplied as a crystalline solid. A stock solution may be made by dissolving the 7-hydroxy-4-methyl-8-nitrocoumarin in the solvent of choice, which should be purged with an inert gas. 7-Hydroxy-4-methyl-8-nitrocoumarin is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of 7-hydroxy-4-methyl-8-nitrocoumarin in these solvents is approximately 10 and 30 mg/ml, respectively.

7-Hydroxy-4-methyl-8-nitrocoumarin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 7-hydroxy-4-methyl-8-nitrocoumarin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 7-Hydroxy-4-methyl-8-nitrocoumarin has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

7-Hydroxy-4-methyl-8-nitrocoumarin is a coumarin derivative with antibacterial and antioxidant activities.<sup>1,2</sup> It is active against *S. aureus* and *E. coli* in a disc assay when used at concentrations of 50 and 100 µg/disc.<sup>1</sup> 7-Hydroxy-4-methyl-8-nitrocoumarin inhibits NADPH-dependent lipid peroxidation in rat liver microsomes.<sup>2</sup>

### References

1. Sahoo, S.S., Shukla, S., Nandy, S., *et al.* Synthesis of novel coumarin derivatives and its biological evaluations. *Eur. J. Exp. Biol.* **2(4)**, 899-908 (2012).
2. Tyagi, Y.K., Kuma, A., Raj, H.G., *et al.* Synthesis of novel amino and acetyl amino-4-methylcoumarins and evaluation of their antioxidant activity. *Eur. J. Med. Chem.* **40(4)**, 413-420 (2005).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/09/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM