

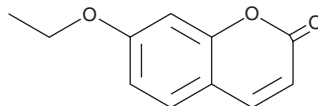
# PRODUCT INFORMATION



## 7-Ethoxycoumarin

Item No. 31215

CAS Registry No.: 31005-02-4  
Formal Name: 7-ethoxy-2H-1-benzopyran-2-one  
MF: C<sub>11</sub>H<sub>10</sub>O<sub>3</sub>  
FW: 190.2  
Purity: ≥98%  
UV/Vis.: λ<sub>max</sub>: 218, 322 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-Ethoxycoumarin is supplied as a crystalline solid. A stock solution may be made by dissolving the 7-ethoxycoumarin in the solvent of choice, which should be purged with an inert gas. 7-Ethoxycoumarin is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of 7-ethoxycoumarin in these solvents is approximately 15 and 30 mg/ml, respectively.

7-Ethoxycoumarin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 7-ethoxycoumarin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 7-Ethoxycoumarin 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

7-Ethoxycoumarin is a substrate for cytochrome P450 (CYP).<sup>1</sup> It undergoes O-deethylation by various CYP isoforms, including CYP1A1, -1A2, and -2B in mice and CYP2E1 in humans. 7-Ethoxycoumarin has been used in the functional characterization of CYPs in cats, rats, and isolated human cornea.<sup>2-4</sup>

### References

1. Yamazaki, H., Inoue, K., Mimura, M., *et al.* 7-Ethoxycoumarin O-deethylation catalyzed by cytochromes P450 1A2 and 2E1 in human liver microsomes. *Biochem. Pharmacol.* **51(3)**, 313-319 (1996).
2. Okamatsu, G., Komatsu, T., Kubota, A., *et al.* Identification and functional characterization of novel feline cytochrome P450 2A. *Xenobiotica* **45(6)**, 503-510 (2015).
3. Kajbaf, M., Ricci, R., Zambon, S., *et al.* Contribution of rat intestinal metabolism to the xenobiotics clearance. *Eur. J. Drug Metab. Pharmacokinet.* **38(1)**, 33-41 (2013).
4. Kölln, C. and Reichl, S. Cytochrome P450 activity in *ex vivo* cornea models and a human cornea construct. *J. Pharm. Sci.* **105(7)**, 2204-2212 (2016).

#### 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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