

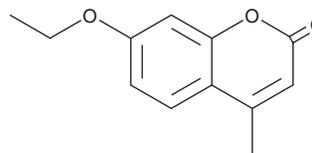
PRODUCT INFORMATION



7-ethoxy-4-Methylcoumarin

Item No. 19586

CAS Registry No.: 87-05-8
Formal Name: 7-ethoxy-4-methyl-2H-1-benzopyran-2-one
Synonyms: 4-Methyl-7-Ethoxycoumarin,
4-Methylumbelliferone ethyl ether, NSC 60561
MF: C₁₂H₁₂O₃
FW: 204.2
Purity: ≥98%
UV/Vis.: λ_{max}: 220, 321 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-ethoxy-4-Methylcoumarin is supplied as a crystalline solid. A stock solution may be made by dissolving the 7-ethoxy-4-methylcoumarin in the solvent of choice, which should be purged with an inert gas. 7-ethoxy-4-Methylcoumarin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 7-ethoxy-4-methylcoumarin in these solvents is approximately 10, 25, and 30 mg/ml, respectively.

7-ethoxy-4-Methylcoumarin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 7-ethoxy-4-methylcoumarin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 7-ethoxy-4-Methylcoumarin has a solubility of approximately 0.1 mg/ml in a 1:8 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-ethoxy-4-Methylcoumarin is a fluorophore that has been used to monitor functional activity of cytochrome P450 (CYP)1A1, CYP2B4, and CYP2B6.^{1,2} It demonstrates excitation/emission maxima of 318 and 377 nm, respectively, in methanol and 360 and 449 nm, respectively, in dealkylase.

References

1. Liu, J., Shah, M.B., Zhang, Q., *et al.* Coumarin derivatives as substrate probes of mammalian cytochromes P450 2B4 and 2B6: Assessing the importance of 7-alkoxy chain length, halogen substitution, and non-active site mutations. *Biochem.* **55(13)**, 1997-2007 (2016).
2. Kuhn, U.D., Splinter, F.K., Rost, M., *et al.* Induction of cytochrome P450 1A1 in rat liver slices by 7-ethoxycoumarin and 4-methyl-7-ethoxycoumarin. *Exp. Toxicol. Pathol.* **50(4-6)**, 491-496 (1998).

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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