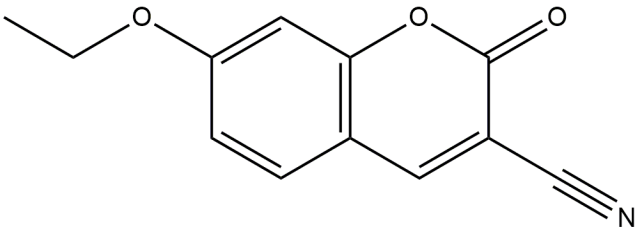
3-Cyano-7-ethoxycoumarin

04/21

ALTERNATE NAMES: 7-ethoxy-2-oxochromene-3-carbonitrile; 7-ethoxy-2-oxo-2h-chromene-3-carbonitrile; 2H-1-Benzopyran-3-carbonitrile, 7-ethoxy-2-oxo-

CATALOG #:
B3133-10 10 mg
B3133-50 50 mg

STRUCTURE:



MOLECULAR FORMULA: $C_{12}H_9NO_3$

MOLECULAR WEIGHT: 215.2

CAS NUMBER: 117620-77-6

APPEARANCE: Yellow powder

PURITY: ≥ 98% (HPLC)

SOLUBILITY: ~10 mg/ml in DMSO

DESCRIPTION: 3-Cyano-7-ethoxycoumarin is a fluorogenic substrate for cytochrome P450. It is metabolized to 3-cyano-7-hydroxycoumarin with an excitation/emission maxima of 408/450 nm, respectively. It can be used to quantify the activity of cytochrome P450-dependent mixed function oxidase.

STORAGE TEMPERATURE: -20 ºC. Store in the dark. Product is light sensitive. Protect from air. Store under desiccating conditions.

HANDLING: Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

REFERENCES:

1. Stresser, D.M., Turner, S.D., Blanchard, A.P., et al. Cytochrome P450 fluorometric substrates: Identification of isoform-selective probes for rat CYP2D2 and human CYP3A4. Drug Metab. Dispos. 30(7), 845-852 (2002).
2. White, I.N. A continuous fluorometric assay for cytochrome P-450-dependent mixed function oxidases using 3-cyano-7-ethoxycoumarin. Anal. Biochem. 172(2), 304-310 (1988).
3. Donato, M.T., Jiménez, N., Castell, J.V., et al. Fluorescence-based assays for screening nine cytochrome P450 (P450) activities in intact cells expressing individual human P450 enzymes. Drug Metab. Dispos. 32(7), 699-706 (2004).

RELATED PRODUCTS:

Proteasome Substrate, Fluorogenic (Cat. No. 1832)
OxiRed™ Probe (Cat. No. 1572)
ACE-2 Substrate, Fluorogenic (Cat. No. B2726)
Caspase-1 Substrate YVAD-AFC (Cat. No. 1103)
Caspase-13 Substrate LEED-AFC (Cat. No. 1116)

DISCLAIMER: ***FOR RESEARCH USE ONLY! Not to be used on humans.***

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