

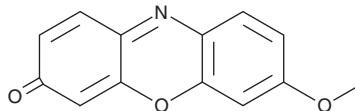
PRODUCT INFORMATION



Methoxyresorufin

Item No. 14852

CAS Registry No.: 5725-89-3
Formal Name: 7-methoxy-3H-phenoxazin-3-one
Synonym: Resorufin methyl ether
MF: C₁₃H₉NO₃
FW: 227.2
Purity: ≥90%
Ex./Em. Max: 570/580 nm
Supplied as: A 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

Methoxyresorufin is supplied as a solid. A stock solution may be made by dissolving the methoxyresorufin in the solvent of choice, which should be purged with an inert gas. Methoxyresorufin is soluble in the organic solvent DMSO.

Description

Methoxyresorufin is a fluorogenic substrate for the cytochrome P450 (CYP) isoforms CYP1A1 and CYP1A2.¹⁻³ Methoxyresorufin is O-demethylated by CYP1A1/2, releasing resorufin, which displays excitation/emission maxima of 570/580 nm, respectively.¹⁻⁴ The appearance of resorufin fluorescence can be used to quantify CYP1A1/2 activity.

References

1. Mayer, R.T., Jermyn, J.W., Burke, M.D., *et al.* Methoxyresorufin as a substrate for the fluorometric assay of insect microsomal O-dealkylases. *Pestic. Biochem. Physiol.* **7(4)**, 349-354 (1977).
2. Nerurkar, P.V., Park, S.S., Thomas, P.E., *et al.* Methoxyresorufin and benzyloxyresorufin: Substrates preferentially metabolized by cytochromes P4501A2 and 2B, respectively, in the rat and mouse. *Biochem. Pharmacol.* **46(5)**, 933-943 (1993).
3. Caballero, M.V., Ares, I., Martínez, M., *et al.* Fipronil induces CYP isoforms in rats. *Food Chem. Toxicol.* **83**, 215-221 (2015).
4. Hofmann, J. and Sernetz, M. Immobilized enzyme kinetics analyzed by flow-through microfluorimetry: Resorufin-β-D-galactopyranoside as a new fluorogenic substrate for β-galactosidase. *Analytica Chimica Acta* **163**, 67-72 (1984).

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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