

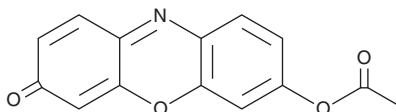
PRODUCT INFORMATION



Resorufin Acetate

Item No. 21686

CAS Registry No.: 1152-14-3
Formal Name: 7-(acetyloxy)-3H-phenoxazin-3-one
Synonym: O-acetyl Resorufin
MF: C₁₄H₉NO₄
FW: 255.2
Purity: ≥98%
UV/Vis.: λ_{max}: 214, 246, 345, 435 nm
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

Resorufin acetate is supplied as a solid. A stock solution may be made by dissolving the resorufin acetate in the solvent of choice, which should be purged with an inert gas. Resorufin acetate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of resorufin acetate in these solvents is approximately 0.1, 5, and 20 mg/ml, respectively.

Resorufin acetate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, resorufin acetate should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Resorufin acetate has a solubility of approximately 0.12 mg/ml in a 1:7 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Resorufin acetate is a fluorometric probe that acts as a substrate for cytosolic aldehyde dehydrogenase (ALDH1A1) esterase activity.¹ It is also a useful substrate for chymotrypsin.² Upon enzymatic cleavage, the resorufin anion displays red fluorescence (ex/em maxima = 570/580 nm, respectively).³

References

1. Kitson, T.M. and Kitson, K.E. Studies of the esterase activity of cytosolic aldehyde dehydrogenase with resorufin acetate as substrate. *Biochem J.* **322**(Pt. 3), 701-708 (1997).
2. Kitson, T.M. Studies on the chymotrypsin-catalysed hydrolysis of resorufin acetate and resorufin bromoacetate. *Biochim. Biophys. Acta.* **1385**(1), 43-52 (1998).
3. 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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