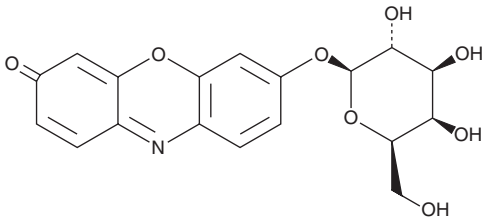
PRODUCT INFORMATION

Resorufin β-D-Galactopyranoside

Item No. 28015

CAS Registry No.:	95079-19-9
Formal Name:	7-(β-D-galactopyranosyloxy)-3H-phenoxazin-3-one
MF:	$C_{18}H_{17}NO_8$
FW:	375.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 245, 458 nm
Ex./Em. Max:	570/580 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Resorufin β-D-galactopyranoside is supplied as a solid. A stock solution may be made by dissolving the resorufin β-D-galactopyranoside in the solvent of choice, which should be purged with an inert gas. Resorufin β-D-galactopyranoside is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of resorufin β-D-galactopyranoside in these solvents is approximately 1, 25, and 2 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of resorufin β-D-galactopyranoside can be prepared by directly dissolving the solid in aqueous buffers. The solubility of resorufin β-D-galactopyranoside in PBS, pH 7.2, is approximately 0.3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Resorufin β-D-galactopyranoside is a fluorogenic substrate for β-galactosidase.[1] Upon enzymatic cleavage by β-galactosidase, the fluorescent moiety resorufin is released and its fluorescence can be used to quantify β-galactosidase activity. Resorufin displays excitation/emission maxima of 570/580 nm, respectively.

Reference

1. 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).

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