

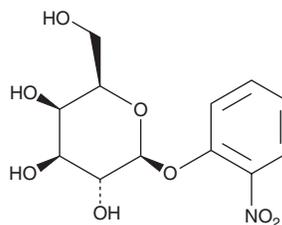
PRODUCT INFORMATION



o-Nitrophenyl β -D-Galactopyranoside

Item No. 26624

CAS Registry No.: 369-07-3
Formal Name: 2-nitrophenyl β -D-galactopyranoside
Synonyms: *ortho*-Nitrophenyl β -D-galactopyranoside, *ortho*-Nitrophenyl β -D-Galactoside, NSC 83631, ONPG
MF: C₁₂H₁₅NO₈
FW: 301.3
Purity: \geq 98%
UV/Vis.: λ_{max} : 212, 256, 310 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

o-Nitrophenyl β -D-galactopyranoside (ONPG) is supplied as a crystalline solid. A stock solution may be made by dissolving the *o*-nitrophenyl β -D-galactopyranoside in the solvent of choice, which should be purged with an inert gas. ONPG is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of ONPG in these solvents is approximately 0.25, 15, and 20 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 ONPG can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of ONPG in PBS (pH 7.2) is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

ONPG is a chromogenic substrate for β -galactosidase.^{1,2} Upon enzymatic cleavage by β -galactosidase, *o*-nitrophenol is released, which can be quantified by colorimetric detection at 420 nm as a measure of β -galactosidase activity.

References

1. Serebriiskii, I.G. and Golemis, E.A. Uses of *lacZ* to study gene function: Evaluation of β -galactosidase assays employed in the yeast two-hybrid system. *Anal. Biochem.* **285**(1), 1-15 (2000).
2. Li, W., Zhao, X., Zou, S., et al. Scanning assay of β -galactosidase activity. *Prikl. Biokhim. Mikrobiol.* **48**(6), 668-672 (2012).

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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