

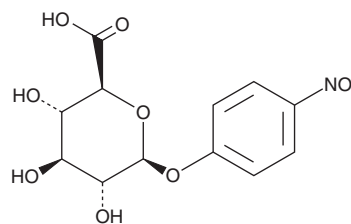
PRODUCT INFORMATION



4-Nitrophenyl β -D-Glucuronide

Item No. 38756

CAS Registry No.: 10344-94-2
Formal Name: 4-nitrophenyl β -D-glucopyranosiduronic acid
MF: C₁₂H₁₃NO₉
FW: 315.2
Purity: \geq 98%
UV/Vis.: λ_{max} : 220, 296 nm
Supplied as: A 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

4-Nitrophenyl β -D-glucuronide is supplied as a solid. A stock solution may be made by dissolving the 4-nitrophenyl β -D-glucuronide in the solvent of choice, which should be purged with an inert gas. 4-Nitrophenyl β -D-glucuronide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 4-nitrophenyl β -D-glucuronide in ethanol and DMSO is approximately 10 mg/ml and approximately 20 mg/ml in DMF.

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 4-nitrophenyl β -D-glucuronide can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 4-nitrophenyl β -D-glucuronide in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

4-Nitrophenyl β -D-glucuronide is a colorimetric substrate for β -glucuronidase.¹ Upon enzymatic cleavage, *p*-nitrophenol is released, which can be quantified by colorimetric detection at 405 nm as a measure of β -glucuronidase activity.

Reference

1. Sadat Ebrahimi M.-M., Voss, Y., and Schönherr, H. Rapid detection of *Escherichia coli* via enzymatically triggered reactions in self-reporting chitosan hydrogels. *ACS Appl. Mater. Interfaces* **7(36)**, 20190-20199 (2015).

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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