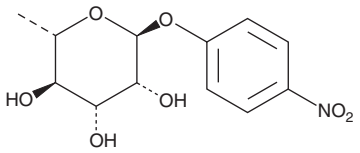
PRODUCT INFORMATION

4-Nitrophenyl α-L-rhamnopyranoside

Item No. 29195

CAS Registry No.: 18918-31-5
Formal Name: 4-nitrophenyl 6-deoxy-α-L-mannopyranoside
Synonym: *p*-Nitrophenyl α-L-rhamnoside
MF: $C_{12}H_{15}NO_7$
FW: 285.3
Purity: ≥98%
UV/Vis.: λ_{max}: 221, 296 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

4-Nitrophenyl α-L-rhamnopyranoside is supplied as a solid. A stock solution may be made by dissolving the 4-nitrophenyl α-L-rhamnopyranoside in the solvent of choice, which should be purged with an inert gas. 4-Nitrophenyl α-L-rhamnopyranoside is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 4-nitrophenyl α-L-rhamnopyranoside 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 4-nitrophenyl α-L-rhamnopyranoside can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 4-nitrophenyl α-L-rhamnopyranoside in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

4-Nitrophenyl α-L-rhamnopyranoside is a colorimetric substrate for naringinase.[1] Upon hydrolysis by the α-rhamnosidase subunit of naringinase, 4-nitrophenol is released which can be quantified by colorimetric detection at 405 nm as a measure of naringinase α-rhamnosidase activity. 4-Nitrophenyl α-L-rhamnopyranoside has been used in the detection of naringinase α-rhamnosidase activity in various bacteria.

Reference

1. Romero, C., Manjón, A., Bastida, J., *et al.* A method for assaying the rhamnosidase activity of naringinase. *Anal. Biochem.* **149(2),** 566-571 (1985).

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