4-Nitrophenyl β-D-Cellobioside

Cat. No.: HY-137827

CAS No.: 3482-57-3

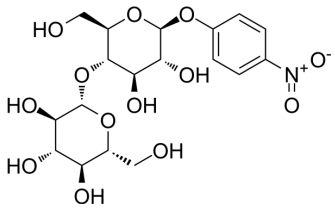
Molecular Formula: $C_{18}H_{25}NO_{13}$

Molecular Weight: 463.39

Target: Fluorescent Dye

Pathway: Others

Storage: -20°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 5 mg/mL (10.79 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1580 mL	10.7900 mL	21.5801 mL
	5 mM	0.4316 mL	2.1580 mL	4.3160 mL
	10 mM	0.2158 mL	1.0790 mL	2.1580 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

4-Nitrophenyl β-D-Cellobioside (p-Nitrophenyl β-D-cellobioside) is a cellotriose analog, a chromogenic substrate for the detection of cellulase activity. Exoglucanases, endoglucanases, and β-glucosidases hydrolyze 4-Nitrophenyl β-D-Cellobioside to yield p-nitrophenol (PNP)[1][2].

REFERENCES

[1]. Coleman DJ, et al. A long-wavelength fluorescent substrate for continuous fluorometric determination of cellulase activity: resorufin-beta-D-cellobioside. Anal Biochem. 2007 Dec 15;371(2):146-53.

[2]. Yukihiko Hayashi, et al. Transcellobiosylation Reactions Catalyzed by Different Exoglucanase Components of a T richoderma viride Cellulase in Aqueous Organic Solvent. Biocatal Biotransfor, 2003, 21(1): 25-31.

Caution: Product has not been fully validated for medical applications. For research use only.

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