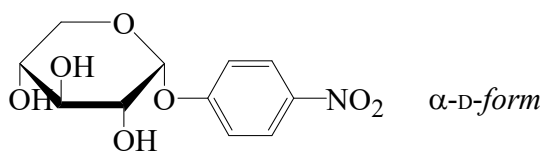




>>Entry Name: 4-Nitrophenyl xyloside



Molecular Formula: C₁₁H₁₃NO₇

Molecular Weight: 271.226

Accurate Mass: 271.069204

Percentage Composition: C 48.71%; H 4.83%; N 5.16%; O 41.29%

>>Variant: α -D-Pyranose-form

CAS Registry Number: 10238-28-5

Molecular Formula: C₁₁H₁₃NO₇

Molecular Weight: 271.226

Accurate Mass: 271.069204

Percentage Composition: C 48.71%; H 4.83%; N 5.16%; O 41.29%

Use/Importance: Substrate for α -xylosidase

Physical Description: Pale yellow syrup

>>Derivative: 2,3,4-Tri-Ac

Molecular Formula: C₁₇H₁₉NO₁₀

Molecular Weight: 397.338

Accurate Mass: 397.100899

Percentage Composition: C 51.39%; H 4.82%; N 3.53%; O 40.27%

Physical Description: Pale yellow cryst. (2-propanol)

Melting Point: Mp 145-147°

>>Variant: β -D-Pyranose-form

CAS Registry Number: 2001-96-9

Molecular Formula: C₁₁H₁₃NO₇

Molecular Weight: 271.226

Accurate Mass: 271.069204

Percentage Composition: C 48.71%; H 4.83%; N 5.16%; O 41.29%

Use/Importance: Substrate for detn. of β -xylosidase activity

Physical Description: Cryst. (EtOH aq.)

Melting Point: Mp 159-161°

Optical Rotation: $[\alpha]_{\text{D}}^{24} -56.7$ (c, 1 in MeOH)

>>Derivative: 2,3,4-Tri-Ac

CAS Registry Number: 24624-78-0

Molecular Formula: C₁₇H₁₉NO₁₀

Molecular Weight: 397.338

Accurate Mass: 397.100899

Percentage Composition: C 51.39%; H 4.82%; N 3.53%; O 40.27%

Physical Description: Cryst. (2-propanol)

Melting Point: Mp 149-151°

Optical Rotation: $[\alpha]_{\text{D}}^{24} -73.5$ (c, 2 in CHCl₃)

References:

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Zhdanov, Y.A. *et al.*, *Dokl. Akad. Nauk SSSR, Ser. Khim.*, 1972, **207**, 607-609; *Dokl. Chem. (Engl. Transl.)*, 1972, **207**, 889-891, (α -D-*form*, *biochem*, *synth*, *tri-O-Ac*)

Xu, W.Z. *et al.*, *Eur. J. Biochem.*, 1991, **202**, 1197-1203, (β -D-*form*, *biochem*)

Le Questel, J.Y. *et al.*, *Carbohydr. Res.*, 1994, **265**, 291-298, (β -D-*form*, *cryst struct*)