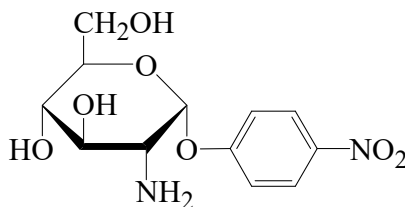




>>Entry Name: 4-Nitrophenyl 2-amino-2-deoxyglucoside

Synonym(s): 4-Nitrophenyl glucosaminide



**Molecular Formula:** C<sub>12</sub>H<sub>16</sub>N<sub>2</sub>O<sub>7</sub>

**Molecular Weight:** 300.268

**Accurate Mass:** 300.095753

**Percentage Composition:** C 48.00%; H 5.37%; N 9.33%; O 37.30%

>>Variant: α-D-Pyranose-form

**Molecular Formula:** C<sub>12</sub>H<sub>16</sub>N<sub>2</sub>O<sub>7</sub>

**Molecular Weight:** 300.268

**Accurate Mass:** 300.095753

**Percentage Composition:** C 48.00%; H 5.37%; N 9.33%; O 37.30%

>>Derivative: *N*-Ac

**CAS Registry Number:** 10139-02-3

**Molecular Formula:** C<sub>14</sub>H<sub>18</sub>N<sub>2</sub>O<sub>8</sub>

**Molecular Weight:** 342.305

**Accurate Mass:** 342.106318

**Percentage Composition:** C 49.12%; H 5.30%; N 8.18%; O 37.39%

**Use/Importance:** Substrate for *N*-acetyl-α-D-glucosaminidase

**Physical Description:** Cryst. (EtOH)

**Melting Point:** Mp 274° (dec.)

**Optical Rotation:** [ $\alpha$ ]<sub>D</sub><sup>23</sup>+273.4 (c, 0.37 in MeOH)

>>Derivative: *N*,3,4,6-Tetra-Ac

**Molecular Formula:** C<sub>20</sub>H<sub>24</sub>N<sub>2</sub>O<sub>11</sub>

**Molecular Weight:** 468.416

**Accurate Mass:** 468.138013

**Percentage Composition:** C 51.28%; H 5.16%; N 5.98%; O 37.57%

**Physical Description:** Cryst. (EtOAc)

**Melting Point:** Mp 197.5-198.5°

**Optical Rotation:** [ $\alpha$ ]<sub>D</sub><sup>23</sup>+192.8 (c, 0.64 in CHCl<sub>3</sub>)

>>Variant: β-D-Pyranose-form

**Molecular Formula:** C<sub>12</sub>H<sub>16</sub>N<sub>2</sub>O<sub>7</sub>

**Molecular Weight:** 300.268

**Accurate Mass:** 300.095753

**Percentage Composition:** C 48.00%; H 5.37%; N 9.33%; O 37.30%

>>Derivative: *N*-Ac

**CAS Registry Number:** 3459-18-5

**Molecular Formula:** C<sub>14</sub>H<sub>18</sub>N<sub>2</sub>O<sub>8</sub>

**Molecular Weight:** 342.305

**Accurate Mass:** 342.106318

**Percentage Composition:** C 49.12%; H 5.30%; N 8.18%; O 37.39%

**Use/Importance:** Substrate for *N*-acetyl-β-D-glucosaminidase

**Physical Description:** Cryst. (EtOH or MeOH)

**Melting Point:** Mp 214° (206.2-206.7°)

**Optical Rotation:** [ $\alpha$ ]<sub>D</sub><sup>23</sup>-19.4 (c, 0.3 in H<sub>2</sub>O)

>>Derivative: *N*,3,4-Tri-Ac