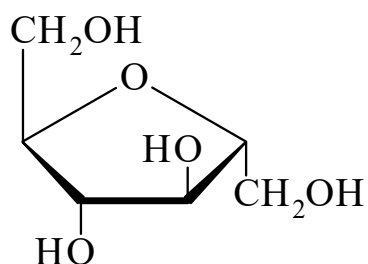




>> Name: 2,5-Anhydromannitol, 9CI



**Molecular Formula:** C<sub>6</sub>H<sub>12</sub>O<sub>5</sub>

**Molecular Weight:** 164.158

**Accurate Mass:** 164.068475

**Percentage Composition:** C 43.90%; H 7.37%; O 48.73%

>>Variant: D-form

**CAS Registry Number:** 41107-82-8

**Molecular Formula:** C<sub>6</sub>H<sub>12</sub>O<sub>5</sub>

**Molecular Weight:** 164.158

**Accurate Mass:** 164.068475

**Percentage Composition:** C 43.90%; H 7.37%; O 48.73%

**Use/Importance:** Used in studying the tautomeric and anomeric specificity of a number of glycolytic enzymes acting on β-D-fructofuranose and its phosphates

**Physical Description:** Prisms (EtOH)

**Melting Point:** Mp 103-104°

**Optical Rotation:** [α]<sub>D</sub><sup>20</sup>+58.2 (c, 1.37 in H<sub>2</sub>O)

**Aldrich:** 30226-0

**Sigma:** A3172

>>Derivative: 3,4,6-Tri-Ac

**Synonym(s):** 3,4,6-Tri-*O*-acetyl-2,5-anhydro-D-mannitol

**CAS Registry Number:** 84446-97-9

**Molecular Formula:** C<sub>12</sub>H<sub>18</sub>O<sub>8</sub>

**Molecular Weight:** 290.269

**Accurate Mass:** 290.10017

**Percentage Composition:** C 49.65%; H 6.25%; O 44.10%

**Physical Description:** Syrup

**Optical Rotation:** [α]<sub>D</sub>+32 (c, 1.0 in CHCl<sub>3</sub>)

>>Derivative: Tetra-Ac

**Synonym(s):** 1,3,4,6-Tetra-*O*-acetyl-2,5-anhydro-D-mannitol

**CAS Registry Number:** 65729-88-6

**Molecular Formula:** C<sub>14</sub>H<sub>20</sub>O<sub>9</sub>

**Molecular Weight:** 332.307

**Accurate Mass:** 332.110735

**Percentage Composition:** C 50.60%; H 6.07%; O 43.33%

**Physical Description:** Oil

**Optical Rotation:** [α]<sub>D</sub>+26 (c, 1.0 in CHCl<sub>3</sub>)

>>Derivative: 1,6-Dibenzoyl

**Synonym(s):** 2,5-Anhydro-1,6-di-*O*-benzoyl-D-mannitol

**Molecular Formula:** C<sub>20</sub>H<sub>20</sub>O<sub>7</sub>

**Molecular Weight:** 372.374

**Accurate Mass:** 372.120905

**Percentage Composition:** C 64.51%; H 5.41%; O 30.08%

**Physical Description:** Cryst. (CH<sub>2</sub>Cl<sub>2</sub>/pentane)

**Melting Point:** Mp 102-104°

**Optical Rotation:** [α]<sub>D</sub><sup>23</sup>+31.4 (c, 1.5 in MeOH)