



**Molecular Formula:** C<sub>12</sub>H<sub>16</sub>O<sub>5</sub>S  
**Molecular Weight:** 272.321  
**Accurate Mass:** 272.071845  
**Percentage Composition:** C 52.93%; H 5.92%; O 29.38%; S 11.78%  
**Physical Description:** Needles (EtOH)  
**Melting Point:** Mp 156-157°  
**Optical Rotation:**  $[\alpha]_{\text{D}}^{20} +258$  (c, 0.6 in Py)

>>**Derivative:** Ph glycoside, tetra-Ac  
**Synonym(s):** Phenyl 2,3,4,6-tetra-*O*-acetyl-1-thio- $\alpha$ -D-glucopyranoside

**CAS Registry Number:** 13992-16-0

**Molecular Formula:** C<sub>20</sub>H<sub>24</sub>O<sub>9</sub>S  
**Molecular Weight:** 440.47  
**Accurate Mass:** 440.114105  
**Percentage Composition:** C 54.54%; H 5.49%; O 32.69%; S 7.28%  
**Physical Description:** Cryst. (Et<sub>2</sub>O/hexane)  
**Melting Point:** Mp 90-91°  
**Optical Rotation:**  $[\alpha]_{\text{D}}^{22} +153.8$  (c, 1.8 in CHCl<sub>3</sub>).  $[\alpha]_{\text{D}}^{25} +8.5$  (c, 0.5 in EtOH)

>>**Variant:**  $\beta$ -D-Pyranose-form

**CAS Registry Number:** 7534-35-2  
**Molecular Formula:** C<sub>6</sub>H<sub>12</sub>O<sub>5</sub>S  
**Molecular Weight:** 196.224  
**Accurate Mass:** 196.040545  
**Percentage Composition:** C 36.73%; H 6.16%; O 40.77%; S 16.34%

>>**Derivative:** 2,3,4,6-Tetra-Ac  
**Synonym(s):** 2,3,4,6-Tetra-*O*-acetyl-1-thio- $\beta$ -D-glucopyranose

**CAS Registry Number:** 19879-84-6

**Molecular Formula:** C<sub>14</sub>H<sub>20</sub>O<sub>9</sub>S  
**Molecular Weight:** 364.373  
**Accurate Mass:** 364.082805  
**Percentage Composition:** C 46.15%; H 5.53%; O 39.52%; S 8.80%  
**Melting Point:** Mp 113-114°  
**Optical Rotation:**  $[\alpha]_{\text{D}}^{20} -2.1$  (c, 2.8 in C<sub>2</sub>H<sub>2</sub>Cl<sub>4</sub>).  $[\alpha]_{\text{D}}^{20} +3.6$  (c, 1.07 in CH<sub>2</sub>Cl<sub>2</sub>)  
**Aldrich:** 10447-7  
**Sigma:** T8388

>>**Derivative:** Penta-Ac  
**Synonym(s):** Penta-*O*-acetyl-1-thio- $\beta$ -D-glucopyranoside

**Molecular Formula:** C<sub>16</sub>H<sub>22</sub>O<sub>10</sub>S  
**Molecular Weight:** 406.41  
**Accurate Mass:** 406.09337  
**Percentage Composition:** C 47.29%; H 5.46%; O 39.37%; S 7.89%  
**Melting Point:** Mp 119-121°  
**Optical Rotation:**  $[\alpha]_{\text{D}} +11$  (CHCl<sub>3</sub>)

>>**Derivative:** 1-Benzoyl, 2,3,4,6-tetra-Ac  
**Synonym(s):** 2,3,4,6-Tetra-*O*-acetyl-1-*O*-benzoyl-1-thio- $\beta$ -D-glucopyranoside

**CAS Registry Number:** 6767-60-8

**Molecular Formula:** C<sub>21</sub>H<sub>24</sub>O<sub>10</sub>S  
**Molecular Weight:** 468.481  
**Accurate Mass:** 468.10902  
**Percentage Composition:** C 53.84%; H 5.16%; O 34.15%; S 6.84%  
**Melting Point:** Mp 126°  
**Optical Rotation:**  $[\alpha]_{\text{D}}^{20} -12.4$  (c, 2.73 in C<sub>2</sub>H<sub>4</sub>Cl<sub>2</sub>)