



## CERTIFICATE OF ANALYSIS

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### 1. Identification

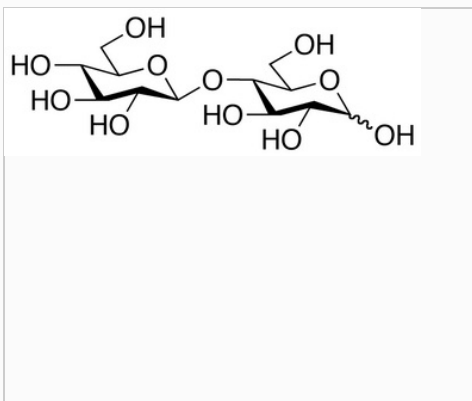
**Catalogue Number:** C255000

**CAS Number:** 528-50-7

**Product:** D-(+)-Cellobiose

**Synonym:** 4-O-β-D-Glucopyranosyl-D-glucose;  
Glc1-b-4-D-Glc;

**Structure:**



**Molecular Formula:**

C<sub>12</sub>H<sub>22</sub>O<sub>11</sub>

**Molecular weight:**

342.29

**Source of Product:**

N/A

**Solubility:**

Aqueous Acid (Slightly),  
Methanol (Slightly, Heated),  
Water (Slightly)

**Lot Number:** 5-GHZ-85-1

**Purity:** 98%

**Shipping Condition:** This Product Is Stable To Be Shipped At  
Room Temperature

**Storage Condition:** -20°C

### 2. Warning

**Warning 1:** Not Determined

**Warning 2:**

**Warning 3:**

### 3. Analytical Information

| Tests:             | Specifications:          | Results:                         |
|--------------------|--------------------------|----------------------------------|
| Appearance         | White to Off-White Solid | White Solid                      |
| NMR                | Conforms to Structure    | Conforms                         |
| Elemental Analysis | Conforms                 | %C: 41.77, %H: 6.22              |
| MS                 | Conforms to Structure    | Conforms                         |
| Specific Rotation  | Report Result            | +35.6° (c = 0.2, Water; 4 Hours) |
| HPLC Purity        | Report Result            | 99.64% (ELSD)                    |

**Additional Information:**

TLC Conditions: SiO<sub>2</sub>; Dichloromethane : Methanol = 2 : 1; Visualized with AMCS and KMnO<sub>4</sub>; Single Spot, R<sub>f</sub> = 0.25. Elemental Analysis: (Theoretical) %C: 42.11, %H: 6.48

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of ± 2%. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

### 4. Signatures

| Reviewed By | Reviewed By   | C of A Approved By | Test Date | Retest Date |
|-------------|---------------|--------------------|-----------|-------------|
| Nicole Yip  | Toni Rantanen | My Nguyen          | 12/3/2019 | 12/1/2026   |