

## CERTIFICATE OF ANALYSIS

**Product Name:** IPTG, Isopropyl-Beta-D-Thiogalactopyranoside

**Chemical Structure:**



**Lot Number:** Chem20180218

**CAT Number:** APL-0045

**CAS Registry Number:** 367-93-1

**Manufacture Date:** 2018-02-18

**Expiry Date:** 2023-02

**Molecular Formula:** C<sub>9</sub>H<sub>18</sub>O<sub>5</sub>S

**Molecular Weight:** 238.3

**Storage:** -20 °C

## Analysis Data

| Item  | Specification   | Results  |
|---|---|----------|
| Appearance                                  | White or off-white solid  | Comply   |
| Solubility                                  | Readily soluble in water,<br>almost insoluble in ether              | Complies |
| Appearance of solution                      | Dissolve 0.1g in 10mL of water,<br>and the solution should be white | Complies |
| Dioxane                                     | Free  | Free     |
| Residue on ignition                         | ≤ 0.5%  | 0.01%    |
| Alpha-isomer                                | ≤ 0.5%  | 0.01%    |
| NMR/MS/IR                                   | Should comply   | Comply   |
| Heavy metals                                | ≤ 20ppm   | Complies |
| Purity by HPLC*                             | ≥ 98.0%   | 99.4%    |
| Assay by TLC                                | ≥ 99.0%   | 100%     |
| pH (5% w/v in water)                        | 5.0 ~ 8.0   | 6.7      |
| Specific optical rotation<br>(C=1 in water) | -29°C ~ -34°C   | -31.2°C  |

The foregoing is a copy of the Certificate of Analysis as provided by our supplier

*Jennifer LaBrecque*

**Jennifer LaBrecque 20/03/2022**  
Quality Assurance Manager

**Conclusion:** The above product meets the specifications of APOLO