

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2022-05-30 16:57:26  
 Date of Next Testing: 2026-05-29 16:57:26  
 Product Name: **p-Nitrophenyl- $\beta$ -D-Galactopyranoside**  
 CAS Number: 3150-24-1  
 Specifications & Purity:  $\geq 99\%$   
 Lot #: E2224130  
 SKU #: **N100371**  
 Version: **0**  
 Analysis #: **081420**  
 Storage Temperature: Store at 2-8°C, Argon charged

| Parameter                                                                    | Limit Values                                           | Result                                                 |
|------------------------------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|
| Specific Rotation $[\alpha]_{20/D}(c=1 \text{ in H}_2\text{O})$              | -87--80 (°)                                            | -82.17400 °                                            |
| Free P-Nitrophenol                                                           | 0-0.1 (%)                                              | 0.07000 %                                              |
| Water by Karl Fischer                                                        | 0-11 (%)                                               | 0.22620 %                                              |
| Purity(HPLC)                                                                 | 99-100 (%)                                             | 99.93300 %                                             |
| Melting point                                                                | 179-183 (°C)                                           | 181.43000 °C                                           |
| Appearance (N100371)                                                         | White to Yellow to Green<br>Powder, Crystals or Chunks | White to Yellow to Green<br>Powder, Crystals or Chunks |
| beta-Galactosidase detection test                                            | to pass test                                           | to pass test                                           |
| Infrared spectrum                                                            | Conforms to Structure                                  | Conforms to Structure                                  |
| Solubility in H <sub>2</sub> O , Colorless to Faint<br>Green, Clear, 10mg/ml | pass                                                   | Pass                                                   |



John Su  
QA & QC Manager