



The Power to Question

# CERTIFICATE OF ANALYSIS

Catalog Number: sc-29065A  
Lot Number: E1512  
Product Name: Geneticin (G418) Sulfate  
CAS Number: 108321-42-2  
Molecular Formula:  $C_{20}H_{40}N_4O_{10} \cdot 2H_2SO_4$   
Molecular Weight: 692.71

| Test                | Specification                                      | Result                  |
|---------------------|----------------------------------------------------|-------------------------|
| Appearance          |                                                    | White powder            |
| pH                  | 5.0 - 6.0                                          | 5.5                     |
| Solubility          | Colorless solution, (100mg/mL in H <sub>2</sub> O) | Freely soluble in water |
| Purity (TLC)        | ≥ 90%                                              | 98% (1 spot)            |
| Absorbance (1)      | ≤ .10                                              | 0.01                    |
| Absorbance (2)      | ≤ .015                                             | 0.001                   |
| Optical Rotation    | +104° - +121°                                      | +114°                   |
| Heavy Metals (Pb)   | ≤ 100ppm                                           | < 20ppm                 |
| Potency (Dry Basis) | > 700μ/mg                                          | 745μ/mg                 |
| Ammonium            | ≤ 1.0%                                             | < 1.0%                  |
| Water Content       | ≤ 8.0%                                             | 5.5%                    |

## Test Conditions

Absorbance (1): A570nm  
Absorbance (2): A280nm

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**Santa Cruz Biotechnology, Inc.**

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