



# Certificate of Analysis

## G418 DiSULFATE SOLUTION TISSUE CULTURE GRADE – 50mg/ml

<u>Catalog #</u> IB02060	<u>Size</u> 20 ml
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**Catalog Number:** IB02060

**Lot Number:** G001-35-L3

**Molecular Formula:**  $C_{20}H_{40}N_4O_{10} * 2H_2SO_4$

**Molecular Weight:** 692.70

**CAS No.:** 108321-42-2

**Appearance:** Clear, colorless to light yellow solution

	<u>Specification</u>	<u>Actual</u>
Absorbance:		
280nm (1mg/ml)	≤ 0.015	0.003
570nm (100mg/ml)	≤ 0.10	0.005
Ammonia:	≤ 1.0%	0.021%
Biological Assay:		
ED <sub>50</sub> Resistant:	≥ 2,500 µg/ml	6,541 µg/ml
ED <sub>50</sub> Sensitive:	≤ 400 µg/ml	121 µg/ml
Elemental Analysis:		
Carbon	28.8 – 36.07%	30.81%
Hydrogen	5.76 – 7.76%	6.68%
Nitrogen	6.72 – 8.41%	7.12%
Water of hydration:	0 – 6	4
Identification (HPLC; IR):	Conforms; Conforms	Conforms; Conforms
pH (200mg/ml):	4.6 – 6.0	5.44
Solubility (100mg/ml in H <sub>2</sub> O):	Clear and complete	Conforms
Specific Rotation:	+104° - +121°	+110°
TLC Analysis (Max three spots):	Conforms	Conforms
Water (Karl Fisher):	≤ 12%	7.31%
Potency (as is; dried basis):	≥700µg/mg; ≥720µg/mg	731 µg/mg; 794 µg/mg
Potency/ml:	50 +/- 10mg/ml	50.1 mg/ml
Sterility:	No colonies	No Microbial Growth
Fill Volume:	20.1 - 20.4 ml/bottle	Conforms

### Storage

Store at +4°C. Warm to room temperature before opening. Keep tightly sealed.

*This signature indicates that the above material has met all quality specifications and has been reviewed by a quality representative.*

Signature: K. McCarthy  
Date: 12/22/2015