

# G-418 (disulfate)

Catalog No: tcsc3074



## Available Sizes

Size: 1g

Size: 5g



## Specifications

### CAS No:

108321-42-2

### Formula:

$C_{20}H_{44}N_4O_{18}S_2$

### Pathway:

Anti-infection

### Target:

Bacterial

### Purity / Grade:

>98%

### Solubility:

H<sub>2</sub>O : ≥ 30 mg/mL (43.31 mM)

### Alternative Names:

Geneticin sulfate;Antibiotic G-418 sulfate

### Observed Molecular Weight:

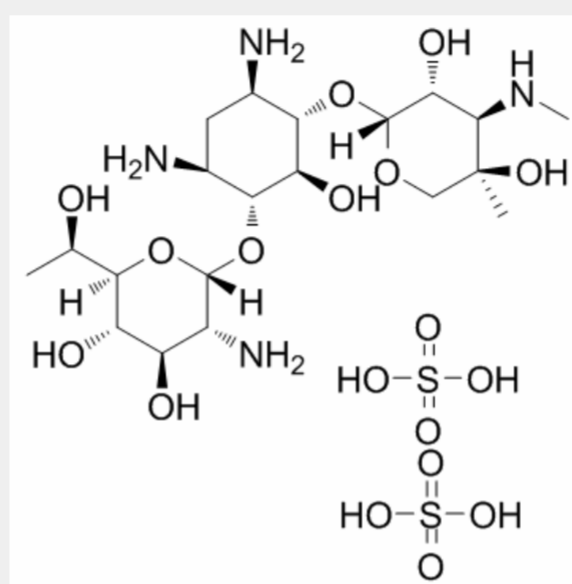
692.71

## Product Description

G-418 (disulfate) is an aminoglycoside antibiotic similar in structure to gentamicin B1, which blocks **polypeptide synthesis** by inhibiting the elongation step in both prokaryotic and eukaryotic cells.

**In Vitro:** G418 is an inhibitor of many pro- and eukaryotes at concentrations from 1-300 microgram/mL. Resistance to G418 conferring by the neo gene from Tn5 encoding an aminoglycoside 3\'-phosphotransferase, APT 3\' II is commonly used in laboratory research to select genetically engineered cells<sup>[1]</sup>. In general for bacteria and algae concentrations of 5 mg/L or less are used, for mammalian cells concentrations of approximately 400 mg/L are used for selection and 200 mg/L for maintenance. Resistant clones selection could require from 1 to up to 3 weeks<sup>[2]</sup>.

**In Vivo:** G418 (40 and 80 mg/kg) for three consecutive days are sufficient to eliminate all nontransfected T. brucei brucei parasites from infected mice<sup>[3]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!