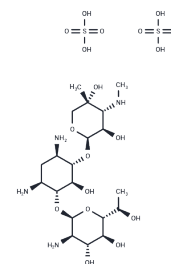


## G-418 disulfate

## Chemical Properties

|                   |                                                                                                                                                    |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| CAS No. :         | 108321-42-2                                                                                                                                        |
| Formula:          | C <sub>20</sub> H <sub>40</sub> N <sub>4</sub> O <sub>10</sub> ·2H <sub>2</sub> O <sub>4</sub> S                                                   |
| Molecular Weight: | 692.71                                                                                                                                             |
| Storage:          | Store under nitrogen<br>Powder: -20°C for 3 years   In solvent: -80°C for 1 year<br><i>Actual storage temperature shall be subject to the COA.</i> |



## Biological Description

|               |                                                                                                                                                                                                                                                                                                                                                                        |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description   | G-418 disulfate (Geneticin sulfate) is an aminoglycoside antibiotic that selectively inhibits eukaryotic protein synthesis by blocking peptide chain elongation.                                                                                                                                                                                                       |
| Targets(IC50) | Antibacterial, Antibiotic                                                                                                                                                                                                                                                                                                                                              |
| In vitro      | Continuous administration of G418 at doses ranging from 40 to 80 mg/kg for three consecutive days is sufficient to eradicate all untransfected Brucella bacterium parasites in infected mice.                                                                                                                                                                          |
| In vivo       | At concentrations ranging from 1 to 300 micrograms/ml, G418 inhibits a variety of prokaryotic and eukaryotic organisms. Typically, concentrations of 5 mg/L or lower are effective against bacteria and algae, while a concentration of 400 mg/L is used for the selection of mammalian cells, and a maintenance concentration for mammalian cells is set at 200 mg/L. |

## Solubility Information

|            |                                                                                                                                                            |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Solubility | H <sub>2</sub> O: 252 mg/mL (363.79 mM), Sonication is recommended.<br>DMSO: Insoluble,<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Preparing Stock Solutions

|       | 1mg       | 5mg       | 10mg       |
|-------|-----------|-----------|------------|
| 1 mM  | 1.4436 mL | 7.218 mL  | 14.4361 mL |
| 5 mM  | 0.2887 mL | 1.4436 mL | 2.8872 mL  |
| 10 mM | 0.1444 mL | 0.7218 mL | 1.4436 mL  |
| 50 mM | 0.0289 mL | 0.1444 mL | 0.2887 mL  |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

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