antibiotics GENESPIN DATA SHEET

> G418 Disulphate Powder

cat. no.	amount	note
STS-G418 1	1g	powder
STS-G418 5	5g	powder
STS-G418 25	25g	powder

G418 (Geneticin) is an aminoglycoside antibiotic similar in structure to gentamicin B1 that is produced by Micromonospora rhodorangea. G418 blocks polypeptide synthesis by inhibiting the elongation step in both prokaryotic and eukaryotic cells. Resistance to G418 is conferred by the neo gene from Tn5 encoding an aminoglycoside 3'-phosphotransferase, APH 3' II.
G418 is commonly used in laboratory research to select genetically engineered cells. 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. However, optimal concentration for resistant clones selection in mammalian cells depends on the cell line used as well as on the plasmid carrying the resistance gene, therefore antibiotic titration should be done to find the best condition for every experimental system. Titration should be done using antibiotic concentrations ranging from 100 mg/L up to 1400 mg/L. Resistant clones selection could require from 1 to up to 3 weeks.

Formulation
$C_{20}H_{40}N_4O_{10} \cdot 2H_2SO_4$

Molecular weight
692,7

Solubility
G418 Disulphate salt is soluble in water (50 mg/ml).

Storage
Store at 4°C as powder. Store at -20°C once reconsituted.

FOR RESEARCH USE ONLY