

Cat No. 38-T17

G418

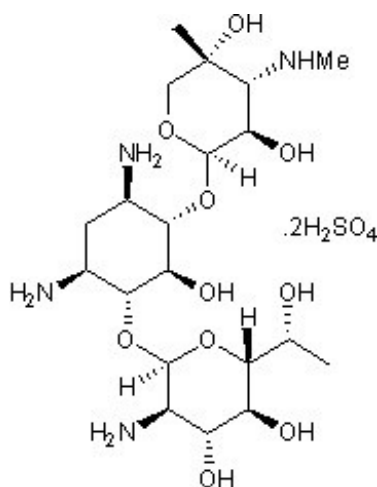
250mg



For research purposes only

Geneticin Sulfate, also known as G418, is an aminoglycoside antibiotic. This compound has been shown to cause a bypass of nonsense mutations during translation. Experiments have shown that G418 inhibits the incorporation of amino acids into protein and can destroy fibroblasts. G418 is toxic to bacteria, yeast, higher plants, mammalian cells, protozoans and helminths. In mammalian cells, selection is commonly performed using 400 mg/L G418, followed by 200 mg/L for culture maintenance. G418 is commonly used for the selection of cells that are genetically engineered with a plasmid containing the neo (neo^r) gene, which provides resistance to G418. This antibiotic is commonly used during the selection of transfected cell lines.

TECHNICAL INFORMATION



Other Names: O-2-amino-2,7-dideoxy-D-glycero-α-D-glucopyranosyl-(1-4)-O-[3-deoxy-4-C-methyl-3-(methylamino)-β-L-arabinopyranosyl-(1-6)]-2-deoxysulfate-D-streptamine

Chemical Formula: C₂₀H₄₀N₄O₁₀ · 2H₂SO₄

CAS Number: 108321-42-2

PubChem Substance ID: 16218858

Molecular Weight: 692.71

Purity: >98%

Appearance: White Powder

Solubility: DMSO

IC₅₀ : 150µg/mL

STORAGE AND HANDLING

Storage: Store at 4°C and protected from light. Following reconstitution, store aliquots at -20°C.

Stability: Stock solutions stable at -20°C for up to 2 years.

Shipping Conditions: Shipped at room temperature.

PRODUCT USE

Soluble in DMSO.

REFERENCES

1. Zufferey, R., et al (2012). Characterization of a compensatory mutant of *Leishmania major* that lacks ether lipids but exhibits normal growth, and G418 and hygromycin resistance. *Exp Parasitol.* 130:200-4.
2. Aubrecht, J., et al (2012). A high G418-resistant neo(R) transgenic mouse and mouse embryonic fibroblast (MEF) feeder layers for cytotoxicity and gene targeting in vivo and in vitro. *Drug Chem Toxicol.* 34:433-9.