G-418 Sulfate, Geneticin

Technical literature is available at: www.mesgenbio.com. E-mail MesGen Technical Services if you have questions on use of this system: tech@mesgenbio.com



CAS: 108321-42-2 Formula: $C_{20}H_{40}N_4O_{10} \cdot 2H_2SO_4$ Molecular weight: 692.71 Appearance: white powder

Specific Rotation: +104° — +121° Moisture: ≤3%

Purity by HPLC: > 98% Potency: > 730 ug/mg

H₃C HO OH NH₂ NH₂ OH NH₂ OH OH OH OH OH OH OH OH OH

Introduction

G-418 sulfate has originally been derived from Micromonospora rhodoranga NRRL 5326. G-418 sulfate is an aminoglycosidic antibiotic, it acts by interfering with protein synthesis and is usually used as an agent for selection of cultured cells expressing a gene that confers resistance to G-418. It is toxic to both prokaryotic and eukaryotic cells. This compound has been shown to cause a bypass of nonsense mutations during translation. Experiments have shown that Geneticin Sulfate inhibits the incorporation of amino acids into protein and can destroy fibroblasts. Mechanistic studies suggest that this agent affects the 80S ribosomes and inhibits the elongation cycle. Further studies report that Geneticin Sulfate is highly active against amoebae, protozoa, tapeworm, and pinworm exposed murine cells.

Storage conditon

G-418 is shipped at room temperature, dry powder should be stored at 2-8°C and solution at -20°C.

Ordering information

Cat.No.	Product Name	Package
MG9028-500MG	G-418 Sulfate, Geneticin	500MG
MG9028-1G	G-418 Sulfate, Geneticin	1G
MG9028-5G	G-418 Sulfate, Geneticin	5G

Distributor in China (Mainland)

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