G-418 (sulfate)
Item No. 13200

CAS Registry No.: 108321-42-2
Formal Name: O-2-amino-2,7-dideoxy-D-glycero-α-D-gluco-
heptopyranosyl-(1→4)-O-[3-deoxy-4-C-methyl-3-(methylamino)-β-L-arabinopyranosyl-(1→6)]-2-
deoxy-D-streptamine, disulfate
MF: C_{20}H_{40}N_{4}O_{10} • 2H_{2}SO_{4}
FW: 692.7
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

G-418 (sulfate) is supplied as a crystalline solid. Aqueous solutions of G-418 (sulfate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of G-418 (sulfate) in PBS (pH 7.2) is approximately 100 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

G-418 is an aminoglycoside antibiotic.\textsuperscript{1} It is active against \textit{T. thermophila} (IC\textsubscript{50} = 10 µM). It inhibits the 80S ribosome and protein elongation during translation in a cell-free assay when used at a concentration of 2 \textit{nM.}\textsuperscript{2} G-418 is used in molecular biology as a selective agent in cell lines or plasmids containing the neomycin resistance gene, \textit{neoR}.\textsuperscript{3} It increases survival in mouse models of \textit{Salmonella}, \textit{P. vulgaris}, \textit{K. pneumoniae}, or \textit{E. coli} when administered at doses ranging from 0.8 to 4 mg/kg.\textsuperscript{4}

References