



G-418 Sulfate, Solution, 100% Activity (50mg/ml) 100ml LTTran03 G-418

Sulfate, Solution, 100% Activity (50mg/ml) 10ml LTTran04

General Information

G-418 is used in the selection and maintenance of eucaryotic cells stably transfected with neomycin resistance genes. G-418 is an aminoglycoside antibiotic, related to Gentamicin, and exhibits toxicity towards both eukaryotic and prokaryotic cells. It is produced by *Micromonospora rhodorangea* and acts by binding the ribosome, thus inhibiting protein synthesis in both prokaryotic and eukaryotic cells.

Appearance	Clear frozen liquid
CAS No.	108321-42-2
Storage and shelf life	Store at $\leq -15^{\circ}\text{C}$. Avoid repeated freeze-thaw cycles. Preparation of aliquots recommended. Once opened, store at $+4^{\circ}\text{C}$ and use within 4-6 weeks.
Shipping conditions	Frozen (Dry ice)
Thawing	Overnight at $+2^{\circ}\text{C}$ to $+8^{\circ}\text{C}$. Swirl gently to homogenize.
Working concentration	Recommended final concentration (0.1 – 1.0 mg/ml) depending on the cell type: <input type="checkbox"/> HeLa: 200–600 $\mu\text{g}/\text{ml}$ <input type="checkbox"/> 3T3 cells: 500–1000 $\mu\text{g}/\text{ml}$ <input type="checkbox"/> CHO: 200–400 $\mu\text{g}/\text{ml}$ <input type="checkbox"/> HEK 293: 500–800 $\mu\text{g}/\text{ml}$ <input type="checkbox"/> Jurkat cells: 600–700 $\mu\text{g}/\text{ml}$

Important Information

- Do not use G-418 with antibiotic/antifungal preparations (e.g. Pen/Strep). These agents are competitive inhibitors of G-418. Other antibiotics are potentially cross-reactive as well.
- Good laboratory practice requires that the optimal concentration of biologically active G-418 to select and maintain cells must be determined for each set of growth conditions. G-418 is used in the concentration range of 100 – 200 $\mu\text{g}/\text{ml}$ for bacteria, or 200 – 500 $\mu\text{g}/\text{ml}$ for most mammalian cells. Concentrations of G-418 required for maintenance of selected cell lines are typically $\leq 50\%$ compared to selection.
- It is recommended that whenever experimental conditions are altered, the optimal concentration of the product should be re-evaluated.

Precautions and Disclaimer

This product is for research use only.