UAB "LT Biotech"

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G-418 Sulfate, Powder 5 g LTTran05 G-418 Sulfate, Powder 10 g LTTran06

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 eukaryoticcells.

Appearance	White or off-white powder
CAS No.	108321-42-2
Storage and shelf life	Store at +2 - +8°C.
Shipping conditions	Ambient
Working concentration	Recommended final concentration (0.1 – 1.0 mg/ml) depending on the cell type: HeLa: 200–600 µg/ml 3T3 cells: 500–1000 µg/ml CHO: 200–400 µg/ml HEK 293: 500–800 µg/ml • Jurkat cells: 600–700 µg/ml

Preparation of Solution

Before application in cell culture, prepare a sterile filtered stock solution of 10 – 50 mg/ml in water. Refer to lot certificate of analysis for microbiological potency. Once reconstituted, stock solutions are stable for approx. 8 weeks at +4°C and approx. 2 years when frozen (-20°C). Avoid repeated freeze/thaw cycles.

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 µg/ml for bacteria, or 200 – 500 µg/ml for most mammalian cells. Concentrations of G-418 required for maintenance of selected cell lines are typically ≤ 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.