Product Information

G-418 Sulfate Powder
Cat. No. G418-Q (5 g), G418-R (10 g)

General Information

G-418 is used in the selection and maintenance of eukaryotic cells, stable 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.

Product Specifications

Appearance	White to off-white powder
CAS No.	108321-42-2
Storage and shelf life	Store at +2°C to +8°C. Please refer to product label for expiration date.
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

Instructions for Use

- 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.
- 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 optimal concentration of biologically active G-418 to select and maintain cells. This 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, 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.

Help Needed?

If you have any further questions regarding this product, please do not hesitate to contact our cell culture experts by email (techservice@capricorn-scientific.com) or phone (+49 6424 944640).