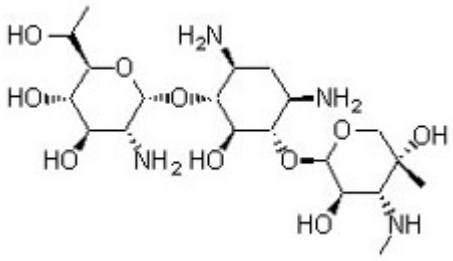
G810
G418 Sulfate



Synonyms:	Geneticin®
CAS:	108321-42-2
Formula:	$C_{20}H_{40}N_4O_{10} \bullet 2H_2SO_4$
Mol. Weight:	692.7

Properties

Form:	Powder
Appearance:	White to off-white powder
Application:	Plant Tissue Culture Antibiotic
Solubility:	Soluble in Water
Storage Temp:	2 to 6 °C Protect from Light.

Application Notes

G418 is an aminoglycoside antibiotic. Unlike other aminoglycoside, G418 is more potent because it contains a hydroxyl function at C-6' position rather than an amino function. It binds directly to the 80S ribosomal subunit and inhibits protein synthesis of eukaryotic cells.[1] G418 is effective against aerobics and facultative Gram-negative bacilli, and some Gram-positive bacteria.

In molecular biology application, G418 sulfate is often used as a selection agent.[2-4]

Please Note: It is the sole responsibility of the purchaser to determine the appropriateness of this product for the specific plants that are being cultured and applications that are being used.

References

1. Marie-Paule Mingeot-Leclercq, Youri Glupczynski, and Paul M. Tulkens. 1999. Aminoglycosides: Activity and Resistance. *Antimicrob Agents Chemother.* Vol 43(4). Pp. 727-737.
2. Xie, D. and Y. Hong. 2002. *Agrobacterium*-mediated genetic transformation of *Acacia mangium. Plant Cell Reports*. Vol 20(10). Pp. 917-922.
3. P. A. Lazzeri, R. Brettschneider, R. Lührs, and H. Lörz. 1991. Stable transformation of barley via PEG-induced direct DNA uptake into protoplasts. *Theoretical and Applied Genetics.* Vol 81(4). Pp. 437-444.
4. Christine Lang-Hinrichs, Dietmar Berndorff, Carsten Seefeldt, and Ulf Stahl. 1989. G418 resistance in the yeast *Saccharomyces cerevisiae*: comparison of the neomycin resistance genes from Tn5 and Tn903. *Applied Microbiology and Biotechnology*. Vol 30(4). Pp. 388-394.

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