

**Product Name:** G418 disulfate salt

**Catalog No.:** 4131

**Batch No.:** 4

CAS Number: 108321-42-2

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>20</sub>H<sub>40</sub>N<sub>4</sub>O<sub>10</sub>.2H<sub>2</sub>SO<sub>4</sub>.5H<sub>2</sub>O

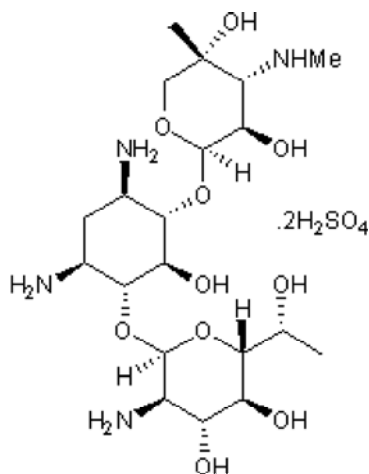
**Batch Molecular Weight:** 782.79

**Physical Appearance:** White solid

**Solubility:** water to 75 mM

**Storage:** Store at +4°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Optical Rotation:** [α]<sub>D</sub> = +103.7 (Concentration = 1, Solvent = Water)

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	30.69	6.95	7.16
Found	30.31	6.85	7.44

**Potency (dried basis):** 777 µg/mg

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Aminoglycosidic antibiotic. Inhibits protein synthesis in both prokaryotic and eukaryotic cells. Used for selection of eukaryotic cells transfected with the neo gene. This product has been cell culture tested.

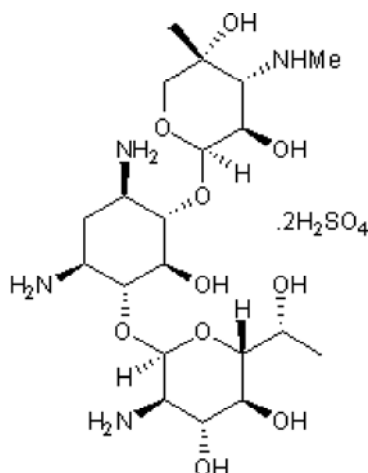
**Physical and Chemical Properties:**

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Batch Molecular Weight: 782.79

Physical Appearance: White solid

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**Storage:** Store at +4°C

**Solubility & Usage Info:**

water to 75 mM

This product has been cell culture tested.

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Burke and Mogg** (1985) Suppression of a nonsense mutation in mammalian cells *in vivo* by the aminoglycoside antibiotics G-418 and paromo. *Nucleic Acids Res.* **13** 6265. PMID: 2995924.

**Bar-Nun et al** (1983) G-418, an elongation inhibitor of 80 S ribosomes. *Biochim.Biophys.Acta.* **741** 123. PMID: 6193810.

**Wagman et al** (1974) Antibiotic G-418, a new Micromonospora-produced aminoglycoside with activity against protozoa and helminths: fermentation, isolation and preliminary characterization. *Antimicrob.Agents Chemother.* **6** 144. PMID: 15828184.

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**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel:+1 612 379 2956