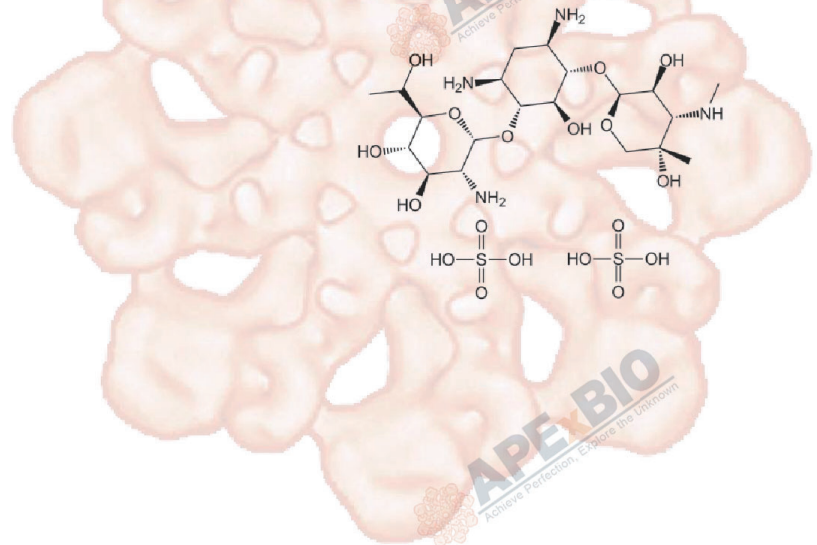


Product Data Sheet

Geneticin, G-418 Sulfate

Cat. No.:	A2513
CAS No.:	108321-42-2
Formula:	C ₂₀ H ₄₀ N ₄ O ₁₀ ·2H ₂ SO ₄
M.Wt:	692.71
Synonyms:	Antibiotic G418
Target:	Microbiology & Virology
Pathway:	Antibiotic
Storage:	Store at -20°C



Solvent & Solubility

insoluble in EtOH; insoluble in DMSO; ≥ 64.6 mg/mL in H₂O

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	1.4436 mL	7.2180 mL	14.4361 mL
	5 mM	0.2887 mL	1.4436 mL	2.8872 mL
	10 mM	0.1444 mL	0.7218 mL	1.4436 mL

Please refer to the solubility information to select the appropriate solvent

Biological Activity

Shortsummary

Aminoglycosidic antibiotic

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line: DENV-2-infected BHK cells

Preparation method:

This compound is limited soluble in DMSO. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Reacting conditions:

1–300 µg/ml, 120 h

	Applications:	Geneticin (1–300 µg/ml) inhibited many pro- and eukaryotes. Geneticin reduced viability of BHK cells with a CC50 value of 165 ± 5 µg/ml. Geneticin prevented DENV-induced CPE and increased cell viability of infected cells with an EC50 value of $\sim 3 \pm 0.4$ µg/ml. Geneticin inhibited the yield of viral titers of DENV-2 even after 72 hpi with an EC50 value of 2 ± 0.1 µg/ml and an EC90 value of about 20 ± 2 µg/ml. Geneticin inhibited the number of plaques produced by the virus, and significantly reduced the sizes of the remaining plaques.
In Vivo	Animal experiment	
	Applications:	
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

- [1] Bar-Nun S, Shneyour Y, Beckmann JS. G-418, an elongation inhibitor of 80 S ribosomes. *Biochim Biophys Acta*. 1983, 741 (1): 123-7.
- [2] Julian Davies and Antonio Jimenez. A new selective agent for eukaryotic cloning vectors. *Am. J. Trop. Med. Hyg.* 1980, 29 (5): 1089-1092. [3] Xianchao G. Zhang, Peter W. Mason, Edward J. Dubovi, Xiaodong Xu, Nigel Bourne, Randall W. Renshaw, Timothy M. Block, and Alexander V. Birk. Antiviral activity of Geneticin against DENGUE virus. *Antiviral Res.* 2009 July, 83(1): 21–27.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

APEX BIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com

