Geneticin Disulfate (G418)

Most effective against gram-negative bacteria.

One special substance that comes from the bacteria *Micromonospora rhodorangea* is called geneticin disulfate (G418) powder. Although its toxicity prevents it from being used as an antibiotic to treat infections, it is valuable for cell culture. It performs the role of a selection agent specifically.

Geneticin Disulfate (G418) Powder binds to ribosomes to prevent the production of proteins. In contrast to eukaryotic cells, prokaryotic cells (bacteria) exhibit a stronger effect of this kind. This enables researchers to cultivate and select cells that are resistant to Geneticin Disulfate (G418) Powder in cell culture tests, while removing those that are not.

Cat. Number	AS-2011
CAS Number	108321-42-2
Additional CAS	49863-47-0
MDL Number	MFCD00058314
PubChem	310274067
Molecular Weight	692.71 g/mol
Molecular Formula	$C_{20}H_{44}N_4O_{18}S_2$
Storage Temperature	4°C
Form and Color	Crystalline powder, white to off-white
Solubility (10% in water)	Clear
Potency (dried basis)	≥ 720 µg/mg
pH (20% in water)	4.6 – 6%
Water content	Max. 14%
Ammonia	≤ 0.5%