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DATASHEET

G418 disulfate salt

Product overview

Name	G418 disulfate salt
Cat No	HB3906
Applications	Cell Culture, Plant Culture, Selection Agent
Description	Antibiotic. Widely used in cell culture. Protein synthesis inhibitor.

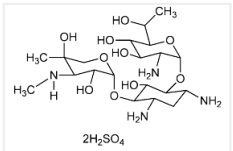
Biological Data

Biological description	Antibiotic. Inhibits protein synthesis to show cytotoxic activity. Widely used in cell culture as a selection antibiotic for the selection of eukaryotic expression vectors, in combination with either aminoglycoside phosphotransferase 3' or APH II. Also shows antiviral activity and induces apoptosis.

Solubility & Handling

Storage instructions	+4°C
Solubility overview	Soluble in water (100 mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	O-2-Amino-2,7-dideoxy-D-glycero-α-D-glucoheptopyranosyl-(1→4)-O-[3-deoxy-4-C-methyl-3-(methylamino)-β-L-arabinopyranosyl-(1→6)]-2-deoxy-D-streptamine sulfate
Molecular Weight	692.71
Chemical structure	
Molecular Formula	$C_{20}H_{40}N_4O_{10}.2H_2SO_4$
CAS Number	108321-42-2
PubChem identifier	16218858
SMILES	CC([C@@H]1[C@H]([C@@H]([C@H]([C@H](O1)O[C@@H]2[C@H](C[C@H]([C@@H]([C@H]2O)O[C@H]3[C@H]([C@@H]([C@](CO3)(C)O)NC)O)N)N)N)O)O)O.OS(=O)(=O)O.OS(=O)(=O)O
InChi	InChI=1S/C20H40N4O10.2H2O4S/c1-6(25)14-11(27)10(26)9(23)18(32-14)33-15-7(21)4-8(22)16(12(15)28)34-19-13(29)17(24-3)20(2,30)5-31-19;2*1-5(2,3)4/h6-19,24-30H,4-5,21-23H2,1-3H3;2*(H2,1,2,3,4)/t6?,7-,8+,9+,10+,11-,12-,13-,14+,15+,16-,17-,18+,19-,20+;;/m0../s1
InChiKey	UHEPSJJJMTWUCP-DHDYTCSHSA-N
MDL number	MFCD00058314
Appearance	White solid

References

The effects of G418 on the growth and metabolism of recombinant mammalian cell lines.

Yallop and Svendsen (2001) Cytotechnology 35(2)
PubMedID 19003287

A novel kanamycin/G418 resistance marker for direct selection of transformants in Escherichia coli and different yeast species.

Agaphonov et al (2010) Yeast 27(4)
PubMedID 20014045

Use of plasmid-mediated resistance to the antibiotic G418 for the rapid screening of a yeast mutant library.

Chenevert et al (1984) J Exp Pathol 1(4)
PubMedID 6400641