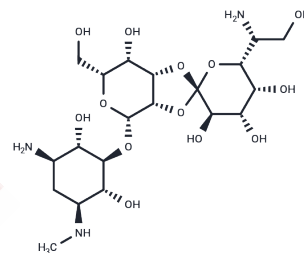


## Hygromycin B

## Chemical Properties

CAS No. :	31282-04-9
Formula:	C <sub>20</sub> H <sub>37</sub> N <sub>3</sub> O <sub>13</sub>
Molecular Weight:	527.52
Appearance:	no data available
Storage:	keep away from moisture Powder: -20°C for 3 years   In solvent: -80°C for 1 year



## Biological Description

Description	Hygromycin B (Hygrovetine) is an aminoglycoside antibiotic that inhibits protein synthesis by interfering with translocation and causing mistranslation of the 70S ribosome. Hygromycin B can be used to screen prokaryotic or eukaryotic cells transfected with hph or hyg resistance genes.
Targets(IC50)	ribosome,Antibacterial,Antibiotic,Antifungal
In vitro	<p><b>METHODS:</b> Mouse PDAC cells 14387T were transfected with lentiCRISPRv2 hygro lentivirus, and after 48 h, the transfected cells were cultured in new medium containing Hygromycin B (500 µg/mL) for two weeks, and the successful transfected cells were screened.</p> <p><b>RESULTS:</b> Hygromycin B screened the lentivirally successfully transfected cells. [1]</p> <p><b>METHODS:</b> E. coli was cultured in medium containing Hygromycin B (0-8 µg/mL) and cell growth was monitored using a Klett-Summerson colorimeter.</p> <p><b>RESULTS:</b> Hygromycin B reduced the number of viable cells and increased doubling time in a concentration-dependent manner. Hygromycin B inhibited the number of viable cells by 50% at a concentration of 20 µg/mL, and halved the rate of growth at a concentration of 25 µg/mL. [2]</p>
In vivo	<p><b>METHODS:</b> To assay antiviral activity in vivo, Hygromycin B (0-5 µmol/kg) was administered intraperitoneally to MHV-A59-infected BALB/c mice twice daily for three days.</p> <p><b>RESULTS:</b> Hygromycin B was able to reduce the levels of viral replication and necrotic liver foci in vivo. [3]</p>

## Solubility Information

Solubility	<p>DMSO: 30 mg/mL (56.87 mM), Sonication is recommended.</p> <p>5% DMSO+95% Saline: 1.58 mg/mL (3 mM), Solution.</p> <p>Saline: 50 mg/mL (94.78 mM), Solution.</p> <p>10% DMSO+90% Saline: 3 mg/mL (5.69 mM), Solution.</p> <p>(&lt; 1 mg/ml refers to the product slightly soluble or insoluble)</p>
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8957 mL	9.4783 mL	18.9566 mL
5 mM	0.3791 mL	1.8957 mL	3.7913 mL
10 mM	0.1896 mL	0.9478 mL	1.8957 mL
50 mM	0.0379 mL	0.1896 mL	0.3791 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

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McGaha SM, et al. Hygromycin B inhibition of protein synthesis and ribosome biogenesis in Escherichia coli. Antimicrob Agents Chemother. 2007 Feb;51(2):591-6.

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Hanif M, et al. Curr Genet, 2002, 41(3), 183-188.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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