Hygromycin B, Concentrated
PRODUCT DATA SHEET

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Product Name:	Hygromycin B, Concentrated
Product Number:	H001
CAS Number:	31282-04-9
Molecular Formula:	$C_{20}H_{37}N_3O_{13}$
Molecular Weight:	527.52 g/mol
Form:	Solution
Appearance:	Amber or Brownish Solution
Source:	Biosynthetic: produced by *Streptomyces hygroscopicus.*
Density:	1,100 - 1,600 mg/mL
Melting Point:	160-180 °C
Storage Conditions:	Stock solutions should be stored at 2-8 °C.
Description:	Hygromycin B is a unique aminoglycoside antibiotic derived from *Streptomyces hygroscopicus.* Hygromycin B is routinely used as a selective agent in cell culture or microbiology applications to isolate hygromycin B resistant cells. This product is packaged as a concentrated solution containing 350-450 units/mL. This product is considered a dangerous good. Quantities above 1 g may be subject to additional shipping fees. Please contact us for specific questions. For more hygromycin B products, click here.
Mechanism of Action:	Hygromycin B inhibits protein synthesis by strengthening the interaction of tRNA binding in the ribosomal A-site. Hygromycin B also prevents mRNA and tRNA translocation by an unknown mechanism. These are unique mechanisms for an aminoglycoside antibiotic and they differ from the mode of action neomycin, gentamicin, and G418.
Spectrum:	Hygromycin B is effective against eukaryotic and prokaryotic cells.
Microbiology Applications	Hygromycin B can be used as a selection agent to isolate hygromycin b resistant bacteria and fungi.
References:	Dai S., Zheng P., Marmey P., Zhang S., Tian W., Chen S., Beachy R.N. and Fauquet C. Comparative analysis of transgenic rice plants obtained by Agrobacterium-mediated transformation and particle bombardment. Molecular Breeding 7: 25–33, 2001. © 2001 Kluwer Academic Publishers. Schindler, D. "Studies on the Mode of Action of Hygromycin B, an Inhibitor of Translocation in Eukaryotes." *Nucleic Acids and Protein Synthesis* 521.2 (1978): 459-69. *www.ncbi.gov*. Web. 6 Sept. 2012.