Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Hygromycin B

Catalog No: tcsc2609

Available Sizes

Size: 200mg

Size: 500mg

Size: 1g

Size: 5g

Specifications

CAS No:
31282-04-9

Formula:
$C_{20}H_{37}N_3O_{13}$

Pathway:
Anti-infection;Anti-infection

Target:
Fungal;Bacterial

Purity / Grade:
>98%

Solubility:
H2O : ≥ 30 mg/mL (56.87 mM)

Alternative Names:
Hygrovetine

Observed Molecular Weight:
527.52

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Product Description

Hygromycin B is an aminoglycoside antibiotic active against prokaryotic and eukaryotic cells.

IC50 & Target: Target：Antibacterial; Antifungal[1]

In Vitro: Hygromycin B, an aminocyclitol antibiotic that strongly inhibits both 70S and 80S ribosomes, is synthesized by Streptomyces hygroscopicus[1]. Hygromycin B at 0.38 mM concentration completely halts yeast cell growth in rich media, presumably by preventing protein synthesis by cytoplasmic ribosomes. Polypeptide synthesis in cell-free extracts from rabbit reticulocytes, wheat germ and yeast is strongly blocked by low concentrations ofhygromycin B. The antibiotic inhibits peptide chain elongation by yeast polysomes by preventing elongation factor EF-2-dependent translocation. The inhibition of translocation by hygromycin B might result from the stabilization of peptidyl-tRNA bound to the ribosomal acceptor site[2].

In Vivo: Hygromycin B inhibits protein synthesis by blocking ribosomal translocation without causing significant misreading *in vivo*[3] . Constitutive expression of the bacterial hyg^R gene in transgenic mice *in vivo* confers resistance to hygromycin B[4].