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

Amphotericin B

Catalog No: tcsc2169

Available Sizes

Size: 100mg

Size: 500mg

Size: 1g

Specifications

CAS No:
1397-89-3

Formula:
$C_{47}H_{73}NO_{17}$

Pathway:
Anti-infection

Target:
Fungal

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 100 mg/mL (108.22 mM); H2O :

Observed Molecular Weight:
924.08

Product Description

Amphotericin B is a polyene antifungal agent against a wide variety of **fungal** pathogens. It binds irreversibly to ergosterol, resulting in disruption of membrane integrity and ultimately cell death.

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

IC50 & Target: Fungal[1]

In Vitro: Amphotericin B administration is limited by infusion-related toxicity, including fever and chills, an effect postulated to result from proinflammatory cytokine production by innate immune cells. Amphotericin B induces signal transduction and inflammatory cytokine release from cells expressing TLR2 and CD14[1]. Amphotericin B interacts with cholesterol, the major sterol of mammal membranes, thus limiting the usefulness of Amphotericin B due to its relatively high toxicity. Amphotericin B is dispersed as a pre-micellar or as a highly aggregated state in the subphase[2]. Amphotericin B only kills unicellular Leishmania promastigotes (LPs) when aqueous pores permeable to small cations and anions are formed. Amphotericin B (0.1 mM) induces a polarization potential, indicating K^+ leakage in KCl-loaded liposomes suspended in an iso-osmotic sucrose solution. Amphotericin B (0.05 mM) exhibits a nearly total collapse of the negative membrane potential, indicating Na^+ entry into the cells[3].

In Vivo: Amphotericin B results in prolonging the incubation time and decreasing PrPSc accumulation in the hamster scrapie model. Amphotericin B markedly reduces PrPSc levels in mice with transmissible subacute spongiform encephalopathies (TSSE)[4]. Amphotericin B exerts a direct effect on Plasmodium falciparum and influences eryptosis of infected erythrocytes, parasitemia and hostsurvival in murine malaria. Amphotericin B tends to delay the increase of parasitemia and significantly delays host death plasmodium berghei-infected mice[5].