

Sertaconazole (nitrate)

Catalog No: tcsc2960



Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

99592-39-9

Formula:

$C_{20}H_{16}Cl_3N_3O_4S$

Pathway:

Anti-infection

Target:

Fungal

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 100 mg/mL (199.69 mM)

Alternative Names:

FI7056

Observed Molecular Weight:

500.78

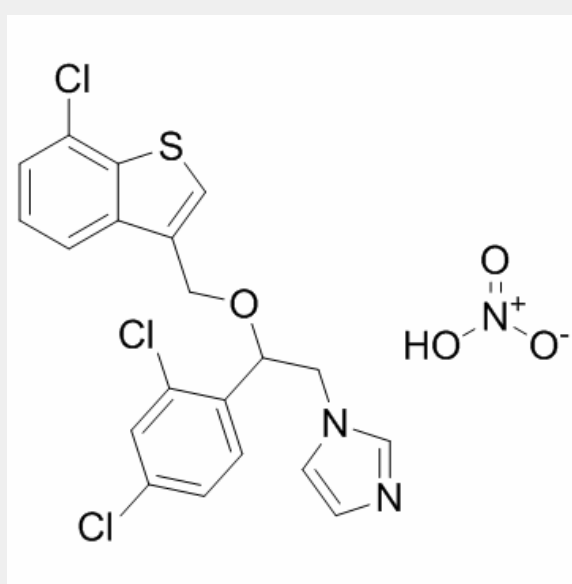
Product Description

Sertaconazole nitrate is a topical broad-spectrum antifungal that is developed to provide an additional agent for the treatment of superficial cutaneous and mucosal infections.

Target: Antifungal

Sertaconazole nitrate reduces the release of cytokines from activated lymphocytes and mitigated inflammation in animal models of irritant contact dermatitis and neurogenic inflammation in a dose-dependent fashion. Sertaconazole nitrate is found to inhibit the proliferation of stimulated human lymphocytes with IC₅₀ of 4 µg/mL [1]. Sertaconazole nitrate inhibits ergosterol synthesis by blockade of the P450-dependent enzyme pathway that catalyzes the methylation of lanosterol to ergosterol, thus inhibits fungal cell growth. Sertaconazole nitrate binds directly to nonsterol lipids in the membrane, which interferes with the regulation of the permeability of fungal cell membranes, thus induces fungal cell death [2].

The mean ear weight of Tetradeconoyl phorbol acetate (TPA)-challenged murine treated with sertaconazole nitrate (1%) is 7.23 mg compared with 14.7 mg for controls, indicating a statistically significant reduction in irritant dermatitis. Sertaconazole nitrate 1% elicits a significant reduction in Resiniferatoxin-induced ear edema when compared with controls in CD-1 mice. Topical treatment with sertaconazole nitrate 1% significantly inhibits contact hypersensitivity and decreases the content of the pro-inflammatory cytokines TNFα, IL-2, and IFNγ in oxazolone exposed murine skin [1]. Clinical trials with sertaconazole nitrate cream 2% show efficacy in the treatment of superficial cutaneous fungal infections [2]. Sertaconazole reduces inflammation via inducing PGE2 production and the COX-2 inhibitor blocks sertaconazole from exerting its anti-inflammatory effects in a mouse model of TPA-induced ear edema [3].



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