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

Posaconazole (hydrate)

Catalog No: tcsc1784

Available Sizes

Size: 5mg

Size: 10mg

Specifications

CAS No:
1198769-38-8

Formula:
$C_{37}H_{44}F_2N_8O_5$

Pathway:
Anti-infection

Target:
Fungal

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
SCH56592 hydrate

Observed Molecular Weight:
718.79

Product Description

Posaconazole hydrate is a broad-spectrum, second generation, triazole compound with **antifungal** activity.

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IC50 & Target: antifungal

In Vitro: Posaconazole has potent trypanocidal activity. Amiodarone acts synergistically with Posaconazole. Posaconazole also affects and disrupts Ca^{2+} homeostasis in *T. cruzi*. Posaconazole blocks the biosynthesis of ergosterol, which is essential for parasite survival. Posaconazole has a clear, dose-dependent effect on proliferation of the epimastigote (extracellular) stages, with a minimal inhibitory concentration of 20 nM and an IC_{50} of 14 nM. Against the clinically relevant intracellular amastigote form of the parasite, Posaconazole is even more potent. Posaconazole has the minimal inhibitory concentration and IC_{50} values of 3 nM and 0.25 nM[1]. Posaconazole is active against isolates of Candida and Aspergillus spp. that exhibit resistance to Fluconazole, Voriconazole, and Amphotericin B and is much more active than the other triazoles against zygomycetes[2].

In Vivo: Treatment of infected animals with amiodarone alone reduces parasitemia, increases survival 60 days pi (0% for untreated controls vs 40% for amiodarone-treated animals) and, when given in combination with Posaconazole, delays the development of parasitemia[1]. Coadministration of Posaconazole and Boost Plus increases drug exposure compared to the administration of Posaconazole alone in the fasted state. Food, particularly meals high in fat content, significantly increases Posaconazole bioavailability. Systemic exposure to Posaconazole increases 4- and 2.6-fold when it is consumed with a high-fat and nonfat meal, respectively[3]. Posaconazole and Amiodarone may constitute an effective anti-T. cruzi therapy with low side effect[4]. At twice-daily doses of ≥ 15 mg/kg of body weight, Posaconazole prolongs the survival of the mice and reduces tissue burden[5].