

# 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

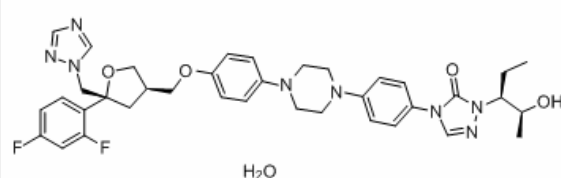
## Product Description

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

IC50 & Target: antifungal

**In Vitro:** Posaconazole has potent trypanocidal activity. Amiodarone acts synergistically with Posaconazole. Posaconazole also affects and disrupts  $\text{Ca}^{2+}$  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  $\text{IC}_{50}$  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  $\text{IC}_{50}$  values of 3 nM and 0.25 nM<sup>[1]</sup>. 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<sup>[2]</sup>.

**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<sup>[1]</sup>. 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<sup>[3]</sup>. Posaconazole and Amiodarone may constitute an effective anti-*T. cruzi* therapy with low side effect<sup>[4]</sup>. At twice-daily doses of  $\geq 15$  mg/kg of body weight, Posaconazole prolongs the survival of the mice and reduces tissue burden<sup>[5]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!