Prochloraz

Cat. No.: HY-B0845

CAS No.: 67747-09-5

Molecular Formula: $C_{15}H_{16}Cl_3N_3O_2$

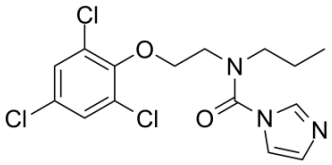
Molecular Weight: 376.67

Target: Fungal; Estrogen Receptor/ERR; Androgen Receptor; Aryl Hydrocarbon Receptor

Pathway: Anti-infection; Others; Immunology/Inflammation

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (663.71 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.6548 mL	13.2742 mL	26.5484 mL
5 mM	0.5310 mL	2.6548 mL	5.3097 mL
10 mM	0.2655 mL	1.3274 mL	2.6548 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 1.98 mg/mL (5.26 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.52 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.52 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Prochloraz is an imidazole antifungal that inhibits ergosterol biosynthesis via inhibition of the cytochrome P450-dependent 14α-demethylation of lanosterol, which results in disruption of the fungal cell membrane and cell death. Prochloraz inhibits human placenta microsomal aromatase in vitro (IC_{50}=40 nM). Prochloraz also acts as an antagonist of the estrogen receptor (ER) and androgen receptor (AR) (IC_{50}s=25 μM and 4 μM, respectively) as well as activates the aryl hydrocarbon receptor (AhR; EC_{50}=1 μM).

Caution: Product has not been fully validated for medical applications. For research use only.

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