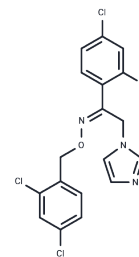


## Oxiconazole

## Chemical Properties

CAS No. :	64211-45-6
Formula:	C <sub>18</sub> H <sub>13</sub> Cl <sub>4</sub> N <sub>3</sub> O
Molecular Weight:	429.13
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Oxiconazole is a broad-spectrum imidazole antifungal agent with fungicidal activity against <i>T. rubrum</i> , <i>T. mentagrophytes</i> , <i>T. tonsurans</i> , <i>T. violaceum</i> , <i>E. floccosum</i> , <i>M. canis</i> , <i>M. audouini</i> , <i>M. gypseum</i> , <i>C. albicans</i> , and <i>M. furfur</i> . have fungicidal activity, inhibiting ergosterol biosynthesis and disrupting fungal cell membrane integrity by disrupting cytochrome P450 enzymes (lanosterol 14- $\alpha$ demethylase). It also inhibits DNA synthesis and suppresses intracellular ATP concentration.
Targets(IC50)	Antibiotic,Antifungal,Cytochromes P450
In vitro	<b>Methods:</b> HCT116, RKO, DLD-1, SW620, SW480 and LoVo cells were treated with oxiconazole (10, 20, 30, 40 $\mu$ M, 24 hours), and cell viability was determined by MTT assay. <b>Results:</b> Oxiconazole significantly inhibited the growth of these cells. [1]
In vivo	<b>Methods:</b> Oxiconazole (50 mg/kg, intraperitoneal injection, 12 days treatment) was used in nude mice with CRC xenograft model to confirm its antitumor activity against CRC in vivo. <b>Results:</b> Oxiconazole treatment reduced tumor size, tumor weight and growth rate of CRC xenografts. [1]

## Solubility Information

Solubility	DMSO: 5 mg/mL (11.65 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3303 mL	11.6515 mL	23.303 mL
5 mM	0.4661 mL	2.3303 mL	4.6606 mL
10 mM	0.233 mL	1.1651 mL	2.3303 mL
50 mM	0.0466 mL	0.233 mL	0.4661 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

- Shi J, et al. Repurposing Oxiconazole against Colorectal Cancer via PRDX2-mediated Autophagy Arrest. *Int J Biol Sci.* 2022 May 21;18(9):3747-3761.
- Svecova L, et al. Azole antimycotics differentially affect rifampicin-induced pregnane X receptor-mediated CYP3A4 gene expression. *Drug Metab Dispos.* 2008 Feb;36(2):339-48.
- Rossello A, et al. Synthesis, antifungal activity, and molecular modeling studies of new inverted oxime ethers of oxiconazole. *J Med Chem.* 2002 Oct 24;45(22):4903-12.
- Kalis B, Grosshans E, Binet O, Garrel JB, Grossetête G, Jeanpierre G, Privat Y, Sonneck JM, Souteyrand P. [Oxiconazole cream versus ketoconazole cream. A prospective, randomized, double-blind, multicenter study in the treatment of inguinocrural dermatophytoses]. *Ann Dermatol Venereol.* 1996;123(8):447-52. French. PubMed PMID: 9033712.

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