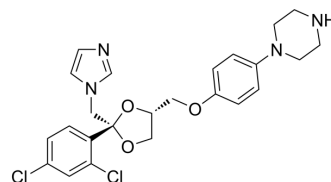


Deacyl ketoconazole

Cat. No.:	HY-129315
CAS No.:	67914-61-8
Molecular Formula:	C ₂₄ H ₂₆ Cl ₂ N ₄ O ₃
Molecular Weight:	489.39
Target:	Bacterial; Fungal
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Deacyl ketoconazole (N-Deacetyl ketoconazole; R-39519) is an orally active metabolite of Ketoconazole (HY-B0105). Deacyl ketoconazole exhibits antifungal and antibacterial activity. Deacyl ketoconazole is cytotoxic in rats hepatocyte ^{[1][2][3]} .								
In Vitro	<p>Deacyl ketoconazole exhibits antifungal and antibacterial efficacy against <i>Staphylococcus aureus</i>, <i>Plasmodium falciparum</i>, <i>Candida albicans</i> and <i>Candida tropicalis</i> with MIC₅₀s of 25 μM, 0.4 μg/mL, 31 μg/mL and 62 μg/mL, respectively^{[1][2]}.</p> <p>Deacyl ketoconazole (0-60 μM) exhibits cytotoxicity human liver derived HepaRG cells in a dose-dependent manner with EC₅₀ of 22.8 μM^[3].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Cytotoxicity Assay^[3]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>HepaRG</td> </tr> <tr> <td>Concentration:</td> <td>0-60 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Exhibited cytotoxicity in a dose-dependent manner.</td> </tr> </table>	Cell Line:	HepaRG	Concentration:	0-60 μM	Incubation Time:	24 h	Result:	Exhibited cytotoxicity in a dose-dependent manner.
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Concentration:	0-60 μM								
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REFERENCES

- [1]. Pfaller MA, et al., Activity of ketoconazole and its deacyl derivative against *Plasmodium falciparum* and *Candida* isolates. *Antimicrob Agents Chemother.* 1982 Nov;22(5):917-9.
- [2]. Bossche H V, et al., Molecular basis for the antimycotic and antibacterial activity of N-substituted imidazoles and triazoles: The inhibition of isoprenoid biosynthesis[J]. *Pesticide science*, 1984, 15(2): 188-198.
- [3]. Fukami T, et al., Human arylacetamide deacetylase hydrolyzes ketoconazole to trigger hepatocellular toxicity. *Biochem Pharmacol.* 2016 Sep 15;116:153-61.

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

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