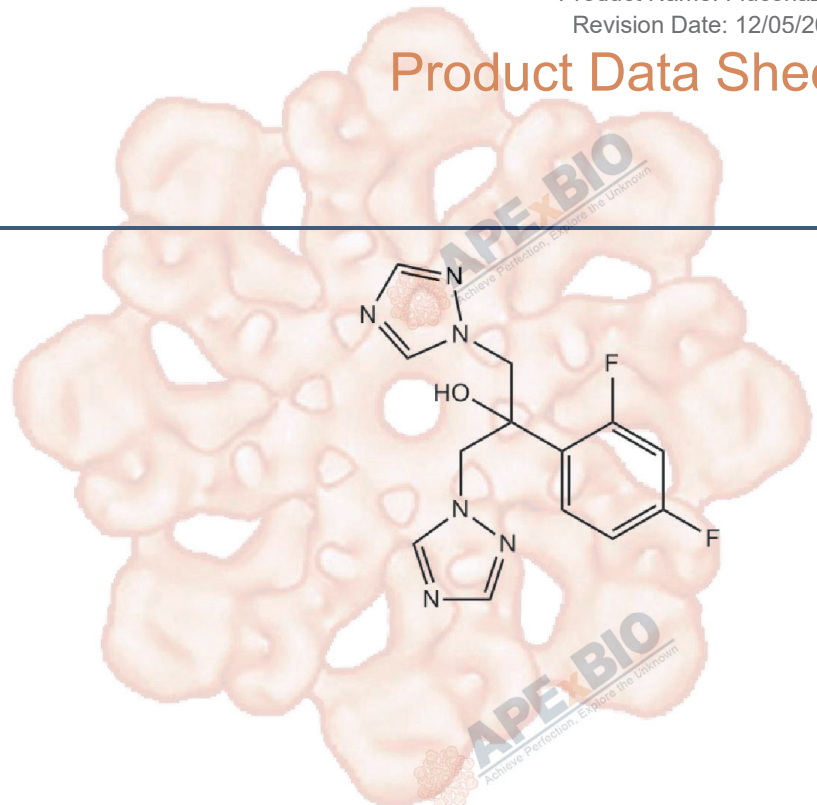


# Product Data Sheet

## Fluconazole

<b>Cat. No.:</b>	B2094
<b>CAS No.:</b>	86386-73-4
<b>Formula:</b>	C <sub>13</sub> H <sub>12</sub> F <sub>2</sub> N <sub>6</sub> O
<b>M.Wt:</b>	306.27
<b>Synonyms:</b>	
<b>Target:</b>	Microbiology & Virology
<b>Pathway:</b>	Antibiotic
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

insoluble in H<sub>2</sub>O; ≥10.9 mg/mL in DMSO; ≥60.9 mg/mL in EtOH

In Vitro

Preparing Stock Solutions	Mass		1mg	5mg	10mg
	Solvent	Concentration			
		<b>1 mM</b>	3.2651 mL	16.3255 mL	32.6509 mL
		<b>5 mM</b>	0.6530 mL	3.2651 mL	6.5302 mL
		<b>10 mM</b>	0.3265 mL	1.6325 mL	3.2651 mL

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

### Biological Activity

Shortsummary

Triazole antifungal agent

IC<sub>50</sub> & Target

In Vitro

#### Cell Viability Assay

Cell Line: The Candida albicans reference strain SC5314

Preparation method: The solubility of this compound in DMSO is >10.9mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Reacting conditions: 10 µg/ml; dissolved in Milli-Q water

	Applications:	In wild-type <i>Candida albicans</i> SC5314 cells, fluconazole (10 µg/ml) and doxycycline (50 µg/ml) inhibited cell growth in a dose dependent way.
In Vivo	<b>Animal experiment</b>	
	Animal models:	<i>C. albicans</i> -infected p47phox <sup>-/-</sup> knockout mice
	Dosage form:	80 mg/kg/day for 13 days; diluted in saline; intraperitoneal injection
	Applications:	In <i>C. albicans</i> -infected p47phox <sup>-/-</sup> knockout mice, fluconazole significantly reduced splenic counts of <i>C. albicans</i> (P =0.008).
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

## Product Citations

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

- [1]. Alessandro Fiori and Patrick Van Dijk. Potent Synergistic Effect of Doxycycline with Fluconazole against *Candida albicans* Is Mediated by Interference with Iron Homeostasis. *Antimicrob Agents Chemother*. 2012 Jul; 56(7): 3785–3796.
- [2]. Justina Y. Ju, Cynthia Polhamus, Kieren A. Marr, et al. Efficacies of Fluconazole, Caspofungin, and Amphotericin B in *Candida glabrata*-Infected p47phox<sup>-/-</sup> Knockout Mice. *Antimicrob Agents Chemother*. 2002 May; 46(5): 1240–1245.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



# APEx BIO Technology

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