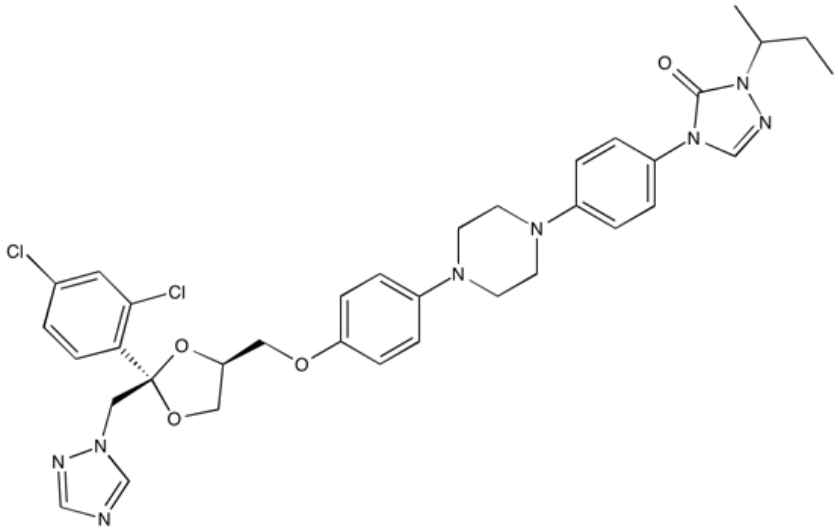
Catalog # 10-2033

Itraconazole

CAS# 84625-61-6

Oriconazole; R51211

Lot # X106614



Itraconazole inhibits the conversion of lanosterol to ergosterol via inhibition of the 14-α demethylase, a cytochrome P-450 enzyme[1]. Clinically useful antifungal agent. It inhibits the proliferation of glioblastoma cells in vitro and in vivo by inducing autophagic progression via inhibiting the trafficking of cholesterol from late endosomes and lysosomes to the plasma membrane[2]. Inhibits the hedgehog pathway by binding to Smoothened (SMO) via a mechanism distinct from that of cyclopamine[3]. Inhibits angiogenesis via inhibiting the binding of VEGF to VEGFR2[4].

1) Vanden Bossche *et al*. (1993), *Effects of itraconazole on cytochrome P-450-dependent sterol 14 alpha-demethylation and reduction of 3-ketosteroids in Cryptococcus neoformans*; Antimicrob. Agents Chemother., **37** 2101
2) Liu *et al*. (2014), *Itraconazole suppresses the growth of glioblastoma through induction of autophagy: involvement of abnormal cholesterol trafficking*; Autophagy, **10** 1241
3) Kim *et al*. (2010), *Itraconazole, a commonly used antifungal that inhibits Hedgehog pathway activity and cancer growth;* Cancer Cell, **17** 388
4) Nacev *et al*. (2011), *The antifungal drug itraconazole inhibits vascular endothelial growth factor receptor 2 (VEGFR2) glycosylation, trafficking, and signaling in endothelial cells*; J. Biol. Chem., **286** 44045

PHYSICAL DATA

Molecular Weight:	705.63
Molecular Formula:	$C_{35}H_{36}Cl_2N_8O_4$
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 1.5 mg/ml with warming)
Physical Description:	White solid
Storage and Stability:	Store as supplied, desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

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