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# Posaconazole

National Cancer Institute

## Source

National Cancer Institute. *Posaconazole*. NCI Thesaurus. Code C61500.

A broad-spectrum, second generation, triazole compound with antifungal activity. Posaconazole strongly inhibits 14-alpha demethylase, a cytochrome P450-dependent enzyme. Inhibition of 14-alpha-demethylase prevents the conversion of lanosterol to ergosterol, an important component of the fungal cell wall. Inhibition of ergosterol synthesis changes the fungal cell membrane composition and integrity, alters membrane permeability and eventually leads to fungal cell lysis. Compared to other azole antifungals, posaconazole is a significantly more potent inhibitor of sterol 14-alpha demethylase.