



LKT Laboratories, Inc.

Ketoconazole

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Product Information

Product ID K1676

CAS No. 65277-42-1

Chemical Name cis-1-Acetyl-4-[4-[[2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-yl)methyl]-1,3-dioxolan-4-yl]methoxy]phenyl]piperazine

Synonym Fungarest, Fungal, Ketoderm.

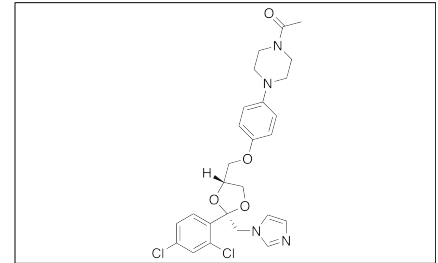
Formula C₂₆H₂₈Cl₂N₄O₄

Formula Wt. 531.44

Melting Point 148-149 °C

Purity ≥98%

Solubility Soluble in DMSO (3 mg/mL),
ethanol (7 mg/mL).



Bulk quantities available upon request

Product ID	Size
K1676	5 g
K1676	25 g

Store Temp Ambient

Ship Temp Ambient

Description Ketoconazole is a synthetic imidazole antifungal that also exhibits anti-androgen, anti-inflammatory, neuromodulatory, and anticancer chemotherapeutic activities. Ketoconazole is clinically used to treat fungal infections; it inhibits 14- α demethylase, preventing ergosterol production and cell wall synthesis. In clinical models of prostate cancer, ketoconazole decreases testosterone and cortisol production and inhibits androgen receptors, displaying potential chemotherapeutic benefit. In cellular models, ketoconazole activates Nrf2 and decreases production of IL-8 and TNF- α .

References Tsuji G, Takahara M, Uchi H, et al. Identification of ketoconazole as an AhR-Nrf2 activator in cultured human keratinocytes: the basis of its anti-inflammatory effect. *J Invest Dermatol.* 2012 Jan;132(1):59-68. PMID: 21753779.

Eil C. Ketoconazole binds to the human androgen receptor. *Horm Metab Res.* 1992 Aug;24(8):367-70. PMID: 1526623.

Witjes FJ, Debruyne FM, Fernandez del Moral P, et al. Ketoconazole high dose in management of hormonally pretreated patients with progressive metastatic prostate cancer. Dutch South-Eastern Urological Cooperative Group. *Urology.* 1989 May;33(5):411-5. PMID: 2652864.

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Caution: This product is intended for laboratory and research use only. It is not for human or drug use.