Bifonazole is an imidazole antifungal drug.
Target: Antifungal
Bifonazole, a new broad-spectrum antimycotic, interferes with sterol biosynthesis. In dermatophytes bifonazole additionally inhibits directly HMG-CoA-reductase. Bifonazole possesses a sequential mode of action, namely inhibition of cytochrome P450-dependent C14-demethylation of sterols and direct inhibition of HMG-CoA-reductase. In vitro bifonazole shows a strongly pH-dependent efficacy. The uptake kinetics of bifonazole have been measured with different pathogens [1]. Bifonazole additionally leads to a generally decreased rate of sterol biosynthesis as compared to clotrimazole, due to a direct inhibition of microsomal HMG-CoA-reductase. The additional fungicidal effects of bifonazole are considered to originate from a sequential action by inhibition of HMG-CoA-reductase and of cytochrome P450 [2]. Bifonazole were affected by choice of medium with Kimmig’s agar generally giving the lowest MIC’s. Bifonazole MICs were shown to vary with pH (maximal activity at pH 6.5) with selected yeasts when tested on Kimmig’s agar [3].

References:

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