药学学报 2003, 38(9) 665-670 DOI: ISSN: CN:

论文

1-(1,2,4-三唑-1H -1-基)-2-(2,4-二氟苯基)-3-(4-取代苄基-1-哌嗪基)-2-丙醇的合成及抗真菌活性

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摘要：

目的寻找广谱、高效、低毒的新一代三唑类抗真菌药物。方法根据靶酶活性位点的空腔大小、各种力场和关键残基分布，设计并合成了19个1-(1,2,4-三唑-1H -1-基)-2-(2,4-二氟苯基)-3-(4-取代苄基-1-哌嗪基)-2-丙醇类化合物，测定了体外抗真菌活性。结果所有化合物对8种致病真菌均有较强的抗真菌活性，对深部真菌的活性明显优于浅部真菌。结论绝大部分化合物的抗真菌活性明显高于氟康唑和特比萘芬，其中化合物VIII-1，10，12，17具有广谱、高活性的优点，值得进一步深入研究。

关键词： 三唑类 合成 抗真菌活性

Synthesis and antifungal activity of 1-(1,2,4-triazolyl-1H-1-yl)-2-(2,4-difluorophenyl)-3-(4-substituted benzyl-1-piperazinyl)-2-propanols

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Abstract:

AimA series of triazole antifungals were synthesized to search for novel triazole antifungals with more potent activity, less toxicity and broader spectrum. MethodsNineteen 1-(1,2,4-triazolyl-1H-1-yl)-2-(2,4-difluorophenyl)-3-(4-substituted benzyl-1-piperazinyl)-2-propanols were designed and synthesized, on basis of the three dimensional structure of P450 cytochrome 14α-sterol demethylase(CYP51) and their antifungal activities were also evaluated. ResultsAll the title compounds were first reported. Results of preliminary biological tests showed that most of the title compounds exhibited high activity against the eight common pathogenic fungi and the activities against deep fungi were higher than that against shallow fungi. ConclusionMost of the title compounds showed higher antifungal activities than Fluconazole and Terbinafine. Compound VIII-1, 10, 12, 17 showed best antifungal activity with broad antifungal spectrum and were chosen for further development.

Keywords: synthesis antifungal activity triazole

收稿日期 2002-09-19 修回日期 网络版发布日期

DOI:

基金项目:

通讯作者: 张万年

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参考文献：

本刊中的类似文章

1．钟武;张万年;李科;周有骏;朱驹;吕加国.2-(2,4-二氟苯基)-3-(N-甲基-N-取代基酰胺基)-1-(1H 1,2,4-三唑-1-基)-2-丙醇类化合物的合成及抗真菌活性的研究[J]. 药学学报, 1999,34(10): 744-750

2．周有骏;张万年;吕加国;李科;朱驹.1-[2-(取代苯基甲硫基)-2-(2,4-二氟苯基)乙基]-1H-1,2,4-三唑类化合物的合成及抗真菌活性[J]. 药学学报, 1997,32(12): 902-907

3．程潜;李长荣;邢玉芬.1-(1-取代苯基)-2-(1H-1,2,4-三唑或苯并三唑基)-*O*-(取代苄基)乙酮肟醚类化合物的合成及抗真菌活性[J]. 药学学报, 1997,32(1): 49-55

4．李科;张万年;杨济秋;吕加国;吴秋业.1-｛2-[(取代苯基)甲氧基]-2-(取代苯基)乙基｝-1H-三唑和苯并三唑类化合物的合成及抗真菌活性[J]. 药学学报, 1995,30(3): 191-198

5．仉文升;沈恂;李五岭;吴艳芬;蔡松君;李心愿;汤丽霞;王丽佳;李仁利.3-硝基-1,2,4-三唑类乏氧细胞放射增敏剂的构效关系[J]. 药学学报, 1994,29(10): 739-745

6．盛春泉;朱杰;张万年;宋云龙;张珉;季海涛;余建鑫;姚建忠;杨松;缪震元.新型三唑类化合物的合成及抗真菌活性[J]. 药学学报, 2004,39(12): 984-989

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