



刘文虎, 刘毅, 常晋霞. 2-(芳基哌嗪)乙酰氨基-5-取代-苯并噻唑衍生物的合成及抗肿瘤活性[J]. 中国现代应用药学, 2014, 31(3):278-283

### 2-(芳基哌嗪)乙酰氨基-5-取代-苯并噻唑衍生物的合成及抗肿瘤活性

Synthesis and Antitumor Activity of 2-(Arylpiperazine) Acetamino-5-Substituted Benzothiazole Compounds

投稿时间: 2013-02-16 最后修改时间: 2013-08-14

DOI:

中文关键词: [苯并噻唑](#) [合成](#) [抗肿瘤活性](#)

英文关键词: [benzothiazoles](#) [synthesis](#) [antitumor activity](#)

基金项目: 川北医学院重点发展项目(CBY11-A-ZP07); 南充市科技计划项目(13A0033)

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中文摘要:

目的 合成新型苯并噻唑衍生物并研究其抗肿瘤活性。方法 以3-取代苯胺为原料合成系列2-(芳基哌嗪)乙酰氨基-5-取代-苯并噻唑衍生物, 采用MTT法测试了化合物对肿瘤细胞的抑制作用。结果 合成了12个新的苯并噻唑衍生物, 化合物结构经<sup>1</sup>H-NMR、ESI-MS和元素分析确证。结论 多数目标化合物对5种肿瘤细胞株具抗增殖作用, 部分化合物显示出与阳性对照药物5-氟尿嘧啶相当的抗肿瘤活性。

英文摘要:

OBJECTIVE To synthesize novel benzothiazole derivatives and investigate their antitumor activities. METHODS A series of 2-(arylpiperazine) acetamino-5-substituted benzothiazole compounds were synthesized from 3-substituted anilines, and their antitumor activities were evaluated in vitro by the standard MTT assay. RESULTS Two novel benzothiazole derivatives were synthesized and their structures were confirmed with <sup>1</sup>H-NMR, ESI-MS and elemental analysis. CONCLUSION Most of the target compounds showed antitumor activities against the tested tumor cells, and some compounds were comparable with that of 5-FU.