药学学报 1996, 31(1) 1-1 DOI: ISSN: CN:

论文

维甲酸与二甲基亚砜诱导HL-60细胞及其抗性亚型MDR 1的表达和对Rhodamine-123外排的影响

周卫东;张鸿卿;方敏;何琪扬;庞大本;薛绍白

北京师范大学化学系, 北京 100875

摘要：

利用Dot blot 和流式细胞术，研究了分化诱导剂维甲酸，DMSO对HL-60细胞及其抗性亚型抗药性程度的影响，表明1μmol·ml^{-1} RA 作用H-60及其亚型24h， MDR 1 mRNA 明显增高，但流式检测多药抗性细胞系对Rho-123的外排有所下降。2%DMSO作用HL-60及其亚型 24h，流式细胞术检测显示各细胞系对Rho-123 的外排明显增强，提示RA 虽然提高MDR 1基因的表达，但可能通过磷酸化/脱磷酸化方式抑制Pgp-170功能的表达，而DMSO能诱导完整功能的Pgp表达。

关键词： 多药抗药性；细胞分化；蛋白磷酸化；流式细胞化

INDUCTION OF EXPRESSION OF MDR 1 GENE BY RETINOIC ACID AND DMSO AND EFFECTS ON RHODAMINE-123 EFFLUX IN HL-60 CELL LINES AND RESISTANT SUBLINES

WD Zhou; HQ Zhang; M Fang; QY He; DB Pang and SB Xue

Abstract:

Using dot blot hybridization and flowcytometry, the effects of differentiation inducers retinoic acid (RA) and dimethyl sulfoxide (DMSO) on the resistant level of HL-60 cells cells and its resistant subline cells were studied. When the cells were treated with RA 1μmol·ml^{-1} for 24h, the expression of MDR 1 mRNA evidently increased in both HL-60 and its multidrug resistant subline cells. The efflux of Rho-123 in the multidrug resistant subline cells was slightly decreased. But, when the cells were treated with 2% DMSO for 24h the efflux of Rho-123 increased obviously. The results suggest that RA can induce the expression of MDR1 gene but perhaps inhibit the function of pump glycoprotein 170(Pgp-170) through phosphorylation/dephosphorylation pathway. However, DMSO could induce the expression of full function of Pgp.

Keywords: Cell differentiation Protein phosphorylation Flow cytometry Multidrug resistance

收稿日期 1995-03-27 修回日期 网络版发布日期

DOI:

基金项目:

通讯作者:

作者简介:

参考文献：

本刊中的类似文章

文章评论 (请注意:本站实行文责自负, 请不要发表与学术无关的内容!评论内容不代表本站观点.)

反馈		邮箱地址	

人			
反馈标题		验证码	2114