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论著

卵巢癌紫杉醇耐药的蛋白质组学研究

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摘要：

目的：研究与卵巢癌紫杉醇耐药相关的蛋白质。方法：应用双向凝胶电泳（2-DE）和基质辅助激光解吸电离飞行时间质谱（MALDI-TOF-MS）寻找紫杉醇耐药细胞和敏感细胞的差异表达蛋白质。使用Western印迹技术对其中2个蛋白质进行验证。结果：通过对2组细胞总蛋白质双向凝胶电脉图谱进行分析，找到差异蛋白质点40个；通过质谱分析，24个蛋白质得到鉴定。这些蛋白质包括增殖细胞核抗原（PCNA）、nm23蛋白、prohibitin（PHB）分子伴侣蛋白、脂皮质素（annexin）、α-烯醇化酶（α-enolase）以及热休克蛋白（HSP）等。结论：通过蛋白质组学技术，发现了卵巢癌紫杉醇耐药细胞系和敏感细胞系之间差异表达蛋白质24个，这些差异蛋白质可能参与卵巢癌细胞紫杉醇耐药过程。

关键词： 卵巢癌 紫杉醇 耐药 蛋白质组学

Proteomic analysis of human ovarian cancer paclitaxel-resistant cell lines

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Abstract:

ObjectiveTo study the proteins related to paclitaxel-resistant of ovarian cancer cell line. MethodsThe total proteins of paclitaxel-resistant and paclitaxel-sensitive human ovarian cancer cell lines were separated by 2-dimensional gel electrophoresis (2-DE). The differentially expressed proteins were analyzed using image analysis software. The differential proteins were identified using matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. Western blot was used to determine the differential expression levels of the 2 proteins. ResultsForty differentially expressed proteins were found by image analysis software, and 24 differential proteins were identified by mass spectrometry. These proteins included proliferation cell nuclear antigen (PCNA), nm23, prohibitin (PHB), annexin, α-enolase, heat shock protein (HSP), and so on. ConclusionTwenty-four proteins in human ovarian cancer cell lines of paclitaxel-resistant and paclitaxel-sensitive are found by proteomic techniques, which may be involved in the paclitaxel-resistance of human ovarian cancer cells.

Keywords: human ovarian cancer cell;paclitaxel;drug resistance;proteomics

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