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摘要:

目的: 研究 JWA 基因 (又称 ARL6IP5 基因, ADP-ribosylation like factor 6 interacting protein 5) 对肿瘤细胞 P-糖蛋白表达及其功能的影响。方法: 利用脂质体转染技术将 JWA shRNA 重组质粒及其空载质粒转入人绒毛膜癌细胞 JAR 和人乳腺癌细胞 MCF-7, 将 Flag-JWA 重组质粒及其空载质粒转入人绒毛膜癌耐依托泊苷 (etoposide, VP16) JAR/VP16 细胞; Western blotting 检测 JWA 和 P-糖蛋白的表达, 流式细胞术分析细胞内罗丹明 123 (Rhodamine 123, Rh123) 的滞留情况。结果: JWA shRNA 重组质粒转入 JAR 细胞和 MCF-7 细胞后, JWA 表达水平降低, P-糖蛋白表达水平上调, 罗丹明滞留减少; Flag-JWA 重组质粒转入 JAR/VP16 细胞后, JWA 表达水平上调, P-糖蛋白表达水平下降, 罗丹明滞留增加。结论: JWA 基因可以调控肿瘤细胞 P-糖蛋白的表达, 并影响其转运功能。

关键词: [JWA 基因](#) [P-糖蛋白](#) [绒毛膜肿瘤](#) [乳腺肿瘤](#) [多药耐药](#)

Effects of JWA gene on expression and function of P-glycoprotein in tumor cells [Download Fulltext](#)

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Abstract:

Objective: To study the effects of JWA (ADP-ribosylation like factor 6 interacting protein 5, ARL6IP5) gene on expression and function of P-glycoprotein in tumor cells. Methods: JWA shRNA and control shRNA plasmids were transfected into human choriocarcinoma cell line JAR and human breast cancer cell line MCF-7, and flag-JWA and flag-control plasmids were transfected into etoposide (VP16) resistant JAR cells (JAR/VP16) by liposome-mediated transfection assay. JWA and P-glycoprotein expressions were examined by Western blotting analysis. Intercellular retention of rhodamine 123 (Rh123) was determined by FCM. Results: After JWA expression was down regulated by JWA shRNA transfection, P-glycoprotein expression was increased in JAR and MCF-7 cells, and Rh123 retention was decreased. After JWA was over expressed by flag-JWA transfection, P-glycoprotein expression was decreased in JAR/VP16 cells and Rh123 retention was increased. Conclusion: JWA gene can regulate the expression and transportation of P-glycoprotein in tumor cells.

Keywords: [JWA gene](#) [P-glycoprotein](#) [choriocarcinoma](#) [breast cancer](#) [multidrug resistance](#)

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