

The Role of GRP78 on the Resistance to Cisplatin in SPCA-1 Cell Line

Jing WU, Qi WANG, Jiarui WANG, Lichuan ZHANG, Long ZHAO






摘要

Background and objective The expression levels of glucose-regulated protein 78 (GRP78) were elevated and correlated with resistance to chemotherapy drug VP-16 in lung cancer cells. However, little is known about the relationship between its expression and resistance to cisplatin in lung cancer cells. The aim of this study was to investigate the expression of GRP78 under the induction of A23187 and its significance in the resistance to anti-tumor drugs cisplatin in a human lung cancer SPCA-1 cell line. **Methods** RT-PCR and Western blot were used to analyze the expression of GRP78 at mRNA and protein levels in SPCA-1 cell line induced by A23187 at different concentrations (0, 1, 2, 4, 6 μ M). MTT was used to determine the effect of cisplatin on cell survival. **Results** The expressions of GRP78 at both mRNA and protein levels were increased obviously in SPCA-1 cell line induced by A23187, with a manner of dose-dependent of A23187 to a great degree; MTT assay showed that the cell survival rate of the A23187-induced group decreased significantly compare to the control group, also with a concentrationdependent manner of A23187. **Conclusion** The expression of GRP78 at both mRNA and protein levels were increased obviously in SPCA-1 cell line induced by A23187. The enhancement of GRP78 showed a negative correlation with the cell survival rate treated by cisplatin. All these indicated that overexpression of GRP78 can enhance the sensitivity to cisplatin and there is correlation between the expression of GRP78 and resistance to cisplatin of human lung cancer SPCA-1 cell line.



全文: [PDF](#) [HTML](#)



ARTICLE TOOLS

-  [索引源数据](#)
-  [如何引证项目](#)
-  [查找参考文献](#)
-  [审查政策](#)
-  [Email this article \(Login required\)](#)

RELATED ITEMS

-  [Related studies Databases Web search](#)
-  [Show all](#)

ABOUT THE AUTHORS

Jing WU

Qi WANG

Jiarui WANG

Lichuan ZHANG

Long ZHAO

CANCER

Yan Sun

www.thoraciccancer.net



JTCR

CJLC

Chinese Journal of Lung Cancer

F1000
FACULTY of 1000

