

论著

## 乳腺癌bcl-2甲基化的检测及与表达、预后的关系

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**摘要** 目的: 建立bcl-2基因甲基化特异的PCR (MSP) 检测方法, 并探讨乳腺癌bcl-2甲基化与蛋白表达、预后因素(肿瘤大小, 淋巴结转移, 增殖细胞核抗原PCNA, 雌、孕激素受体ER、PR情况)的关系。方法: 设计bcl-2基因MSP引物, 采用MSP方法检测54例乳腺癌bcl-2基因5'端启动子CpG岛甲基化状态。采用免疫组化SP法检测54例乳腺癌bcl-2、PCNA、ER、PR的表达。结果: 乳腺癌bcl-2甲基化率为29.6%。Bcl-2甲基化与其蛋白表达之间呈显著负相关( $P < 0.01$ )。Bcl-2甲基化率高与不良的预后因素(PCNA标记指数LI高、ER-和PR-)显著相关( $P < 0.01$ )。结论: 该研究建立bcl-2基因MSP检测方法, MSP扩增和测序结果证实, bcl-2基因MSP引物设计是合理的。bcl-2甲基化有可能成为乳腺癌预后不良的分子检测指标。

**关键词** [乳腺肿瘤](#); [DNA甲基化](#); [基因](#); [bcl-2](#)

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## Detection of bcl-2 methylation and the relationship between bcl-2 methylation and expression, prognostic factors in breast cancer

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### Abstract

<FONT face=Verdana>AIM: To establish methylation-specific PCR (MSP) method for detecting bcl-2 gene, and to study the relationship between bcl-2 methylation and expression, prognostic factors in breast cancer. METHODS: The primer of bcl-2 gene for MSP was designed. The methylations in CpG island of bcl-2 gene in 54 cases of breast cancer were detected by using MSP. The expressions of bcl-2, PCNA, ER and PR in 54 cases of breast cancer were detected by using SP immunohistochemical technique. RESULTS: The overall positive rate of bcl-2 methylation was 29.6% in breast cancer. There was a significant negative correlation between the methylation of bcl-2 and the expression of bcl-2 ( $P < 0.01$ ). The methylation of bcl-2 coincided with those bad prognostic factors such as high PCNA label index (LI), ER- and PR- ( $P < 0.01$ ). CONCLUSIONS: This study established the MSP method for detecting bcl-2 gene. The results of MSP and sequence analysis testified that the design of the MSP primer of bcl-2 gene in this study was successful. The methylation of bcl-2 would become the marker indicating bad prognosis of breast cancer.</FONT>

**Key words** [Beast neoplasms](#) [DNA methylation](#) [Genes](#) [bcl-2](#)

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