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专栏

MYETS1基因的原核表达及其在多发性骨髓瘤细胞系中的缺失分析

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摘要:

目的:初步探讨MYETS1基因在多发性骨髓瘤细胞系ARH-77及KM3中表达下调机制及进行MYETS1基因原核表达分析。**方法**:运用FISH技术检测两株ARH-77和KM3细胞系染色体13q14.3区域缺失情况;RT-PCR扩增MYETS1基因,并构建pGEX-4T-MYETS1重组载体。**结果**:ARH-77和KM3细胞系中MYETS1基因所在染色体13q14.3区域获得未缺失阳性信号;生物信息学分析MYETS1基因与LECT1基因序列同源,但通过RT-PCR实验证实MYETS1基因开放阅读框与LECT1基因开放阅读框不一致;成功获得MYETS1基因原核表达蛋白产物。**结论**:ARH-77和KM3两株骨髓瘤细胞系中MYETS1基因所在染色体13q14.3区域未发生缺失,其在多发性骨髓瘤细胞中表达下调可能存在其他机制。

关键词: 多发性骨髓瘤 13q14.3 缺失 MYETS1基因 重组表达

MYETS1 recombinant expression in prokaryotic cells and deletion analysis in multiple myeloma cell lines

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Abstract:

Objective: To explore the down-expression mechanism of MYETS1 gene in multiple myeloma cell lines ARH-77 or KM3, and express MYETS1 gene in prokaryotic express system. Methods: The region of chromosome 13q14.3 in ARH-77 and KM3 was detected by FISH.MYETS1 gene was amplified by RT-PCR and cloned into prokaryotic expression vector pGEX-4T. Results: Positive consequence was acquired in 13q14.3 where MYETS1 located by FISH in ARH-77 and KM3 cell lines. Bioinformatics indicated highly sequence homology between MYETS1 and LECT1, but excluded the homology of open reading frame between MYETS1 and that of LECT1 by RT-PCR. Myets1 protein was expressed and harvested successfully Conclusion: The region of chromosome 13q14.3,where MYETS1 gene located, was not defected in ARH-77 and KM3 cell lines. Down-expression of MYETS1 might be regulated by other mechanisms in multiple myeloma cell lines.

Keywords: multiple myeloma 13q14.3 deletion MYETS1 recombinant expression

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