论著

CAGE基因在颅脑肿瘤中的表达及其机制

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摘要 背景与目的: 检测颅脑肿瘤组织中CAGE基因的表达及启动子区甲基化情况,探讨将其用于肿瘤免疫治疗的可能性。 材料与方法: 采用RT-PCR及甲基化特异性PCR,检测8种正常组织(17例),35例脑膜瘤和32例胶质瘤组织CAGE基因表达及启动子区甲基化情况。结果: CAGE基因在除睾丸以外的正常组织中不表达,4例脑膜瘤(11.3%)和26例胶质瘤(81.25%)CAGE基因表达阳性;CAGE基因表达阳性的组织非甲基化扩增均为阳性,表达阴性的组织甲基化扩增均为阳性。结论: CAGE基因启动子区甲基化与其表达密切相关,CAGE可能成为胶质瘤的肿瘤特异性抗原。

关键词 CAGE基因 甲基化 胶质瘤 肿瘤免疫

The Expression of CAGE Gene and Its Mechanism in Intracranial Tumors

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Abstract BACKGROUND & AIM: We studied the expression and promoter methylation of CAGE gene in intracranial tumors in order to explore its potential use in tumor immunotherapy. MATERIALS AND METHODS: RT-PCR and methylation-specific PCR were performed to detect the expression of CAGE gene in 17 normal tissues, 32 glioma and 35 meningioma, as well as the pattern of methylation in the promoter region. RESULTS: The CAGE gene was expressed in none of the normal tissues except testis. It was expressed in 4 meningioma (11.3%) and 26 glioma (81.25%). We found PCR products with methylation-specific primers in all the CAGE-negative cases and the PCR products with non-methylation-specific primers in all the CAGE-positive cases. CONCLUSION: The methylation of CAGE gene was closely associated with its expression. CAGE could act as the tumor-specific antigen for glioma.

Keywords CAGE gene; methylation; glioma; tumor immunity

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