

论著

## pEgr-P16重组质粒的构建及其在EC9706细胞中的辐射诱导表达

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**摘要** 目的: 构建pEgr-P16重组质粒并检测其在人食管癌细胞系EC9706中的辐射诱导表达。方法: 人P16 cDNA基因连接到Egr-1启动子的下游构建成pEgr-P16重组质粒, 利用脂质体介导转染人EC9706细胞, 用Western blot方法检测不同剂量 $\gamma$ 射线照射后被转染细胞中P16的表达。结果: 酶切鉴定证实pEgr-P16重组质粒构建正确。被pEgr-P16重组质粒转染的人食管癌EC9706细胞经不同剂量 $\gamma$ 射线照射后, P16基因表达均高于未照射组。结论:  $\gamma$ 射线可诱导pEgr-P16重组质粒在人EC9706细胞中表达增强。

**关键词** [Egr-1启动子](#);  [\$\gamma\$ 射线](#); [P16表达](#); [食管癌细胞系](#); [Western blot](#)

## CONSTRUCTION OF pEgr-P16 PLASMID AND ITS EXPRESSION IN EC9706 CELL INDUCED BY IONIZING IRRADIATION

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**Abstract** Purpose: To construct pEgr-P16 plasmid and detect its expression in esophageal squamous EC9706 cells induced by irradiation. Methods: Human P16 cDNA was ligated to downstream of Egr-1 promoter to construct pEgr-P16 plasmid. The recombined plasmids were transfected into EC9706 cells with liposome. The expression of P16 after different doses of  $\gamma$ -ray irradiation was detected by Western blot technique. Results: Restriction enzyme digestion showed pEgr-P16 was correctly constructed. The P16 expression in cells transfected with pEgr-P16 induced by different doses of irradiation was higher than that of sham-irradiation group. Conclusion:  $\gamma$ -ray can induce and enhance expression of pEgr-P16 plasmid in EC9706 cells.

**Keywords** [EGR-1 promoter](#)  [\$\gamma\$ -ray](#) [P16 expression](#) [Western blot](#) [esophageal squamous cell line](#)

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