

论著

酵母单杂交筛选人食管癌细胞系SHEEC中NF-kappa B元件结合蛋白

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摘要 背景与目的: 从食管癌细胞cDNA文库中筛选能够特异性结合NF-kappa B核心元件的蛋白质分子, 探讨NGAL基因的表达调控机制, 探寻NGAL基因在食管上皮细胞癌变中过表达的原因。材料与方法: 应用酵母单杂交系统, 以三重NF-kappa B元件寡聚核苷酸串为诱饵, 对人食管癌细胞系SHEEC cDNA酵母杂交文库进行筛选, 应用DNA测序及生物信息学技术对筛选克隆进行分析。结果: 共获得30个阳性克隆, 包括4种编码蛋白, 2个hypothetical protein, 2种线粒体基因, 3类非编码RNA等。结论: 应用酵母单杂交手段筛选出食管癌细胞NF-kappa B核心元件结合蛋白, 但只是一种初步的实验, 还需进一步研究证实。

关键词 [酵母单杂交](#) [食管癌](#) [cDNA文库](#)

Screening NF-kappa B Element Binding Protein of Esophageal Carcinoma Cell Line SHEEC With Yeast One Hybrid System

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Abstract BACKGROUND & AIM: This study was to screen an esophageal cancer cell line (SHEEC) cDNA library for the cDNA that expressed a protein that can specifically bind the NF-kappa B element, for further understanding the expression and regulation mechanism of the NGAL(neutrophil gelatinase-associated lipocalin) gene, and the course for the over-expression of the NGAL gene in the esophageal epithelial squamous carcinoma. **MATERIAL AND METHODS:** A tandem three oligo-nucleotides of NF-kappa B was employed as a bait in a yeast one hybrid system to screen the cDNA library of the human esophageal carcinoma cell line (SHEEC). The cDNA clones obtained were sequenced and analyzed with bioinformatics tools. **RESULTS:** Among the thirty clones obtained, four types of clones could encode proteins, two clones were hypothetical proteins, two types of clones were mitochondrial genes, and three types of clones were non-encoding sequences. **CONCLUSION:** Using the yeast one hybrid system to screen the cDNA library for the NF-kappa B core element is a preliminary work that needs confirmation by further study.

Keywords [yeast one hybrid](#) [esophageal carcinoma](#) [cDNA library](#)

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