

## 用一个简单快速的RT-PCR技术筛选白细胞介素-6作用相关基因

### Isolation of Genes Related with IL-6 Effect by a Rapid and Simple RT-PCR Method

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英文关键词: [IL-6](#) [differential expressed gene](#) [Sko007 cell](#)

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中文摘要:

为了研究白细胞介素-6(IL-6)作用相关基因以及一些可能受IL-6调控的基因, 利用一个简单快速的以PCR为基础的方案, 检测了IL-6处理和未处理的Sko007细胞中基因表达的差异, 克隆并鉴定了差异表达基因的cDNA片段. 首先用6-mer寡核苷酸引物进行反转录从而最大限度地mRNA编码区序列生成cDNA; 然后用2或3个较长的随机引物进行PCR扩增, 并以不同引物组合重复PCR扩增; 扩增产物在2%琼脂糖凝胶上电泳分离, 回收差异片段并直接用于克隆、测序及进一步分析. 在此研究中, 获得了3个表达序列标签(EST), 其中一个为新的基因片段, 反向RNA杂交有力证实了它们与IL-6作用的相关性. 进一步的生物信息学分析表明, 新基因片段STRF17在多种组织中表达.

英文摘要:

The significant results are gene expression when cytokine acts on receptors. To study genes related with IL-6 effect, here a simple and rapid PCR-based protocol is utilized to detect and isolate cDNA fragments of the differential expressed genes between the IL-6 treated and untreated Sko007 cells. To generate cDNAs from most internal regions of mRNAs by the reverse transcription using three fully degenerated 6-mer oligonucleotide as primers. And then PCR amplification of the cDNAs with two or three longer primers that are arbitrary but defined sequences is carried on, The PCR amplification was repeated on the same cDNA templates (first step) with different sets of primers. PCR products were electrophoresed in the 2% agarose gel and then the recovered different fragments were used directly in cloning and sequencing. 3 different ESTs were obtained, one of which is a novel gene fragment, and its were proved to be IL-6 related genes by reverse Northern blot analysis. Further bioinformatics analysis indicated that new STRF17 fragments are expressed in many tissues and cells.

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