

#909 Cloning of a novel nucleotide sequence from human lung tissue.
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We cloned and sequenced a by-product of a PCR reaction for prostate-specific antigen (PSA) from a lung cancer cDNA. This product did not display any homology to the PSA gene and represented a novel 450-bp sequence not previously deposited in GenBank. We then developed a new PCR method which can recognize the novel 450-bp sequence. The PCR product was used as a probe to screen a PAC genomic library and isolate a 100-kb clone containing the sequence of interest. This PAC was then subcloned into a plasmid vector and subclones were sequenced to construct a 5-kb region. The PAC clone was mapped to the long arm of chromosome five in region q12 by fluorescence *in situ* hybridization. The localization of this sequence on chromosome five was further confirmed by using PCR of DNA from somatic cell hybrids. Using radiation hybrid clones, we further localized this sequence on chromosome five between markers AFM183YB8 and W1-3887. Analysis of the 5-kb sequence revealed at least one open reading frame of about 300 bases. We are now examining the expression pattern of the novel sequence in various tumor tissues and constructing a more refined map of the region on chromosome five.

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