

Title (en)  
GENES AMPLIFIED IN CANCER CELLS

Title (de)  
VERMEHRERTE GENE IN KREBSZELLEN

Title (fr)  
GENES AMPLIFIES DANS DES CELLULES CANCEREUSES

Publication  
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Application  
**EP 97920293 A 19970409**

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Abstract (en)  
[origin: WO9738085A2] New methods are disclosed for detecting cancer associated genes, and obtaining corresponding cDNA sequences. The methods involve supplying RNA preparations from control cells, and from a plurality of different cancer cells that share a duplicated or deleted gene in the same region of a chromosome. Amplified cDNA copies are displayed, and then selected based on differences in abundance of RNA between preparations. Optional additional screening steps involve surveying panels of cancer cells using the cDNA for RNA overabundance with or without gene duplication. The identified genes can be used in turn to develop materials and techniques for diagnosing and treating the underlying cancer. Four novel genes associated with cancer have been identified. In at least about 60 % of the breast cancer cell lines tested, RNA hybridizing with the cDNAs were substantially more abundant than in normal cells. Most of the cell lines also showed a duplication of the corresponding gene, which probably contributed to the increased level of RNA in the cell. However, for each of the four genes, there were some cell lines which had RNA overabundance without gene duplication. This suggests that the gene product is sufficiently important to the cancer process that cells will use several alternative mechanisms to achieve increased expression.

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