MOUSE MAMMARY CARCINOMA CELL LINE MUTATED AT C-KI-RAS GENES.

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ABSTRACT

Cell line derived from a mouse mammary carcinoma from mammary epithelial cells treated with N-methyl-N-nitrosourea.

Mouse mammary epithelial cells can be transformed in primary cultures to preneoplastic and neoplastic states when treated with N-methyl-N-nitrosourea (MNU). Mammary carcinomas arising from MNU-induced hyperplastic alveolar nodules (a type of mouse mammary preneoplastic lesion) contained transforming c-Ki-ras genes when examined by the NIH 3T3 focus assay. Hybridization of allele-specific oligonucleotides to c-Ki-ras sequences amplified by the polymerase chain reaction demonstrated the presence of a specific G-35----A-35 point mutation in codon 12 in each of the NIH 3T3 foci as well as the mammary carcinomas. This mutation resulted in the substitution of the normal glycine with an aspartic acid. Furthermore, this mutation in the c-Ki-ras proto-oncogenes was also detected in 9 of 10 hyperplastic alveolar nodules. These results demonstrate that the specific c-Ki-ras mutation is a preneoplastic event in MNU-induced mouse mammary carcinogenesis.

Published reference:

Miyamoto, S. & et al. 1990 Mol. Cell Biol. 10:1593-9

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OTHER INFORMATION

KEYWORDS

cell line, research tool

CATEGORIZED AS

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