A novel human oncogene isolated from the human breast cancer cell line MCF7 and designated sec, was identified based upon its ability to transform NIH3T3 cells in culture. Sucrose gradient fractionated DNA from a tertiary transformant, enriched for transforming activity, was utilized to generate a restricted recombinant library in the PBR322 plasmid (1). The library was screened by sib selection and transfection to identify a plasmid containing a cellular insert of 4.0 kb whose transforming activity was $3.0 \times 10^4$ foci per microgram. The sec gene is altered in human breast, colon and prostate carcinomas by amplification, rearrangement or deletion.

The transforming region was localized to a 2.2 kb segment of the 4.0 kb cellular insert. This region was sequenced in both directions and a single open reading frame was identified encoding a putative protein of 109 amino acids. Two polyadenylation signals were present beginning at 78 and 132 bases after the termination codon. Sec is an intronless gene having a message size of approximately 1.0 kb which has been detected in secretory epithelial tissue but not in lymphoid, myeloid or fibroblastic tissues. Screening of the 60.0 version of GenBank indicated that sec is not homologous to previously described genes.

**REFERENCE**