

P3-153

THE NORMAL EPITHELIAL CELL-SPECIFIC GENE 1 (NES1) RESIDES ON CHROMOSOME 19q13 AND ITS EXPRESSION IS REGULATED BY STEROID HORMONES. Liuying Luo, Linda Grass, E P Diamandis.* Pathology & Laboratory Medicine, Mount Sinai Hospital, Toronto, Ontario, Canada

The normal epithelial cell-specific 1 (NES1) gene is a recently identified novel serine protease-like gene, the expression of which is down-regulated during breast cancer progression. The cDNA of this gene was cloned and predicted to be a serine protease by protein homology comparison. In this study, we investigated the chromosomal localization of the NES1 gene by somatic cell hybrid and radiation hybrid mapping. NES1 gene was mapped to chromosome 19q13.3-4, in the same region where the human kallikrein gene family resides. These results suggest that NES1 may be a novel member of the human kallikrein gene family. In order to further investigate whether NES1 is regulated by steroid hormones, like the other members of the kallikrein gene family, we studied its steroid hormone regulation using the BT-474 breast cancer cell line. The reverse transcriptase-polymerase chain reaction (RT-PCR) was employed to monitor NES1 mRNA after the cell line was stimulated by different steroid hormones at a concentration of 10^{-7} M. Our results indicate that the expression of NES1 gene in this cell line is up regulated by estrogens, androgens and progestins.

THE ENDOCRINE SOCIETY