

**#4348 PROSTASE/KLK-L1 IS OVEREXPRESSED IN OVARIAN TUMORS.**

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Prostase/KLK-L1 is one of the newly discovered members of the human kallikrein-like gene family. Initially, it has been demonstrated by Northern blotting that this gene is expressed almost exclusively in prostate tissue, and is upregulated by androgens in the LNCaP prostatic carcinoma cell line. Our group has shown that this gene is expressed in many other human tissues, and in the BT-474 breast cancer cell line where it is upregulated by both androgens and progestins. Based on its apparent association with hormonally regulated tissues, we have undertaken to screen normal, benign and malignant ovarian tissues for possible differential expression of this gene. Tissues were pulverized and total RNA was extracted using the Trizol® method. Total RNA was quantified by spectrophotometry, and then was reverse-transcribed into cDNA. Using primers specific for Prostase/KLK-L1, we amplified this gene by PCR. Identity of the PCR product was verified by sequencing. The results, based on 5 normal, 5 benign and 10 cancerous tissues, indicate that Prostase/KLK-L1 is differentially expressed, with almost undetectable levels of expression in normal ovarian tissue, with low expression in benign ovarian tissue, and overexpression in ovarian tumor tissue. Our finding may have applicability for the diagnosis and management of ovarian carcinoma since Prostase/KLK-L1 is a secreted protein. Currently we are developing immunological assays to examine the levels of the protein in biological fluids and tissues of ovarian cancer patients.