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JOURNAL ARTICLE

Identification of human glandular kallikrein hK2 from LNCaP cells

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Based on studies indicating that human glandular kallikrein (hK2) mRNA is present in the prostate, we prepared a monoclonal antibody to a synthetic peptide corresponding to the 41-56 region of hK2 to try to identify the hK2 protein. Although prostate-specific antigen (PSA) and hK2 share 80% homology, the 41-56 amino acid sequence of hK2 is only 50% homologous with PSA. A monoclonal antibody, HK1A523, was identified that demonstrates high specificity for hK2. In western blot analysis, the antibody has a 1,000-fold greater sensitivity for the detection of hK2 than for PSA. The antibody was used to probe spent media from the prostate carcinoma cell line, LNCaP. An immunoreactive species was N-terminally sequenced and identified as mature hK2. HK1A523 was also utilized to probe prostate tumor cytosols and seminal fluid where putative forms of hK2 were also identified. The hK2 protein therefore is expressed and secreted from prostate carcinoma cells.

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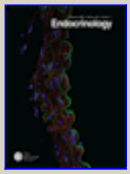

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