

Journal of Andrology, Vol 15, Issue 6 528-533, Copyright © 1994 by The American Society of Andrology

JOURNAL ARTICLE

Estrogen receptor messenger RNA expression in human benign prostatic hyperplasia: detection, localization, and modulation with a long-acting gonadotropin-releasing hormone agonist

A. Kirschenbaum, M. Ren, I. Erenburg, B. Schachter and A. C. Levine

Department of Urology, Mount Sinai School of Medicine, New York, New York.

We have analyzed human benign prostatic hyperplastic (BPH) tissue derived from eight radical prostatectomy specimens from patients with prostate cancer for the expression of the estrogen receptor (ER) messenger RNA. Four of the eight patients received a long-acting gonadotropin-releasing hormone agonist (GnRHa) for 4 months prior to surgery. An RNase protection assay utilizing six riboprobes spanning most of the ER protein-coding sequences demonstrated expression of the ER mRNA in human BPH tissue. A comparison of ER mRNA expression in four patients who had received 4 months pretreatment with the GnRHa vs. the four untreated patients suggested that there is upregulation of ER mRNA expression with the GnRHa treatment. The combined techniques of in situ hybridization and immunocytochemistry localized the ER mRNA expression to the prostatic basal epithelial cells and stroma. We conclude that ER mRNA is expressed in human BPH tissue and that this expression is modulated by treatment with a long-acting GnRH agonist.

This article has been cited by other articles:



Cancer Research

[HOME](#)

A. Latil, I. Bièche, D. Vidaud, R. Lidereau, P. Berthon, O. Cussenot, and M. Vidaud

Evaluation of Androgen, Estrogen (ER α and ER β), and Progesterone Receptor Expression in Human Prostate Cancer by Real-Time Quantitative Reverse Transcription-Polymerase Chain Reaction Assays

Cancer Res., March 1, 2001; 61(5): 1919 - 1926.

[\[Abstract\]](#) [\[Full Text\]](#)

This Article

- ▶ [Full Text \(PDF\)](#)
- ▶ [Alert me when this article is cited](#)
- ▶ [Alert me if a correction is posted](#)

Services

- ▶ [Similar articles in this journal](#)
- ▶ [Similar articles in PubMed](#)
- ▶ [Alert me to new issues of the journal](#)
- ▶ [Download to citation manager](#)

Citing Articles

- ▶ [Citing Articles via HighWire](#)
- ▶ [Citing Articles via Google Scholar](#)

Google Scholar

- ▶ [Articles by Kirschenbaum, A.](#)
- ▶ [Articles by Levine, A. C.](#)
- ▶ [Search for Related Content](#)

PubMed

- ▶ [PubMed Citation](#)
- ▶ [Articles by Kirschenbaum, A.](#)
- ▶ [Articles by Levine, A. C.](#)



K.-M. Lau, M. LaSpina, J. Long, and S.-M. Ho
Expression of Estrogen Receptor (ER)-{ { alpha } } and ER-{ beta } in
Normal and Malignant Prostatic Epithelial Cells: Regulation by
Methylation and Involvement in Growth Regulation
Cancer Res., June 1, 2000; 60(12): 3175 - 3182.
[\[Abstract\]](#) [\[Full Text\]](#)