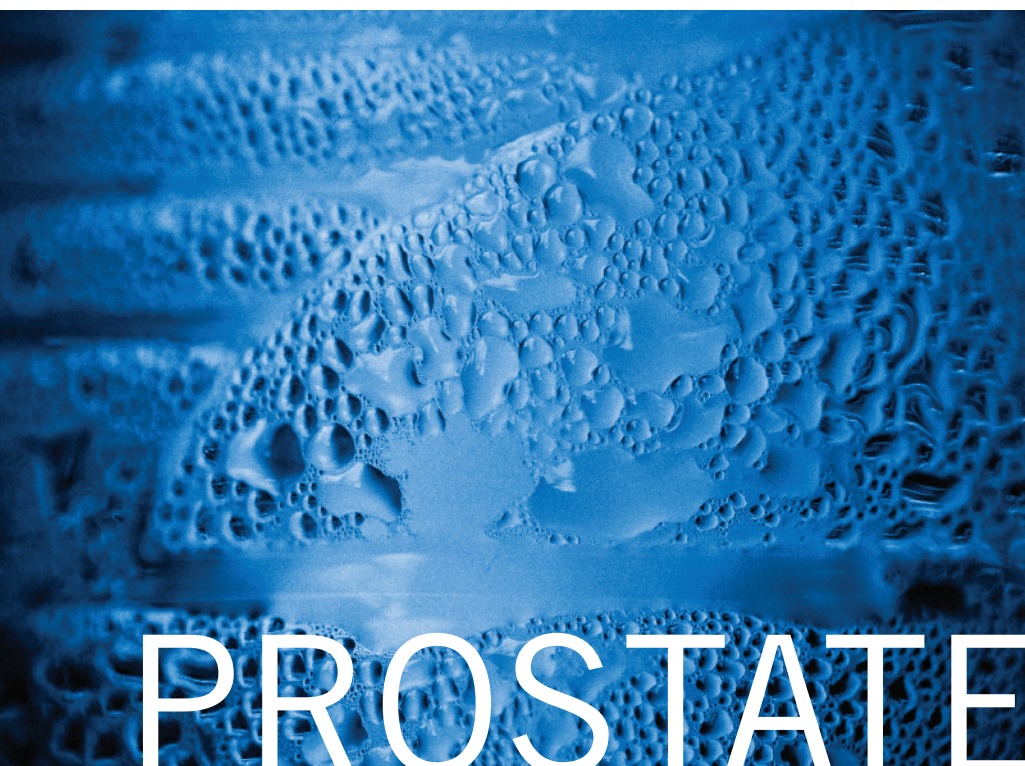


Key Antibodies For















# Prostate Cancer



Prostate cancer is the 3<sup>rd</sup> highest diagnosed cancer in the United States, with about 13.3% of new cancer cases classified as prostatic, contributing approx. 4.7% of cancer deaths yearly. As of 2012, there were approximately 2,795,000 men living with prostate cancer in the United States. Those diagnosed with prostate cancer have a 5 year survival rate of 98.9%. Over the last 10 years, the new cancer case rate has dropped an average of 4.3% each year while the death rate has not changed significantly. Biocare Medical is proud to offer key prostate antibodies that may aid in the identification of their respective proteins by IHC in FFPE tissues.

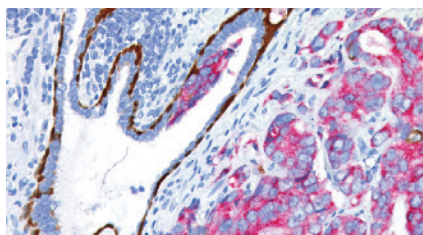
SEER Cancer Statistics Factsheets: Prostate Cancer. National Cancer Institute. Bethesda, MD, <http://seer.cancer.gov/statfacts/html/prost.html>

## Key Antibodies for Prostate Cancer

Product Name	Source	Clone	Catalog Number
CK5/14 + p63 + P504S	 /  +  + 	XM26/LL002 + 4A4 + N/A	PPM 225DS; IPR 225DS
ERG-2™ (ERG + CK5)	 + 	9FY + EP1601Y	API 437DS
ERG + AMACR	 + 	9FY + 13H4	APR 3013DS
Androgen Receptor		AR441	ACI 109; API 109
c-Myc		Y69	CME 415; PME 415
NKX3.1		N/A	CP 422; PP 422
p63		4A4	CM 163; PM 163; IP 163; OAI 163
Prostate Specific Antigen		EP1588Y	CME 390; PME 390; OAI 390
PTEN		6H2.1	CM 278; PM 278

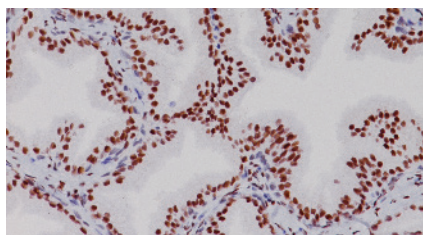


# Key Antibodies for Prostate Cancer



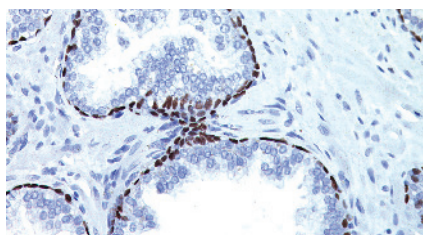
## CK5/14 + p63 + P504S

In prostate tissue, CK5/14 and p63 have been detected in the basal cells of normal glands and prostatic intraepithelial neoplasia (PIN) but were not identified in invasive prostatic adenocarcinoma. P504S has been shown to be a specific marker of prostatic adenocarcinoma and undetectable in benign glands.



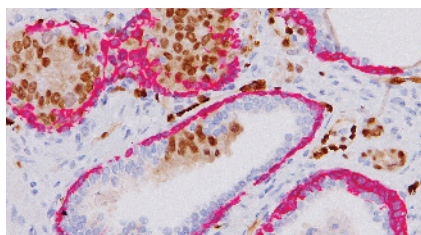
## Androgen Receptor

The androgen receptor (AR) antibody is highly specific and does not cross-react with estrogen, progesterone or glucocorticoid receptors. In prostate cancer, it is a marker of hormone-responsiveness, as high expression may help identify patients that would respond to androgen ablation therapy.



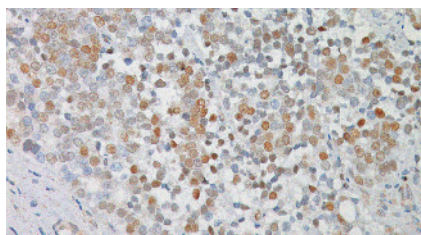
## p63

p63 has been identified in proliferating basal cells in the epithelial layers of a variety of tissues, including prostate. p63 was detected in nuclei of the basal epithelium in normal prostate glands; and prostatic intraepithelial neoplasia (PIN); however, it was not expressed in malignant tumors of the prostate.



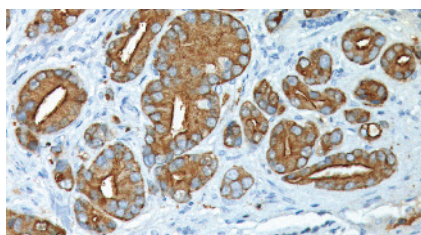
## ERG-2™ (ERG + CK5)

There is a strong concordance of ERG positive prostatic intraepithelial neoplasm (PIN) in ERG positive carcinoma with 99.9% specificity. CK5 stains basal cell layers in normal glands and PIN. ERG + CK5 identifies the TMPRSS2-ERG chromosomal translocation in prostate cancer, but also highlights PIN in red.



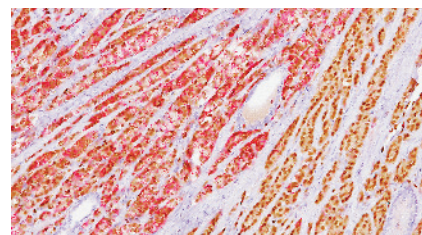
## c-Myc

The oncogene-encoded protein c-Myc plays a role in activating the transcription of growth related genes. c-Myc gene amplification has been found in several types of human tumors. Over-expression of the c-Myc oncogene has been implicated in the development and progression of human prostate carcinoma.



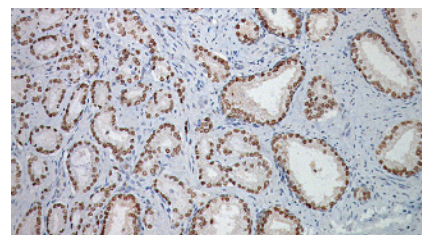
## Prostate Specific Antigen

Prostate Specific Antigen (PSA) can be used as a screening marker for differentiating high-grade prostate adenocarcinoma from high-grade urothelial carcinoma. PSA may also be a useful aid to confirm prostatic acinar cell origin in primary and metastatic carcinomas and to rule out non-prostatic carcinoma mimics.



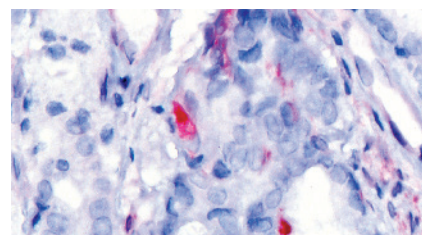
## ERG + AMACR

ERG expression offers a rare, but definitive marker of adenocarcinoma of prostatic origin, and unique opportunities to indicate oncogenic activations in PIN. AMACR is a specific marker of prostatic adenocarcinoma and PIN. Together, ERG + AMACR may identify primary and metastatic prostate cancer.



## NKX3.1

NKX3.1 is positive in the vast majority of primary prostatic adenocarcinomas. NKX3.1 is highly sensitive for identifying metastatic prostatic adenocarcinomas. The specificity was 99.7% in prostate cancer. NKX3.1 with ERG may represent a superior combination to aid in identifying tumors of prostatic origin.



## PTEN

PTEN functions as a regulator of both cell cycle progression and apoptosis. Mutation and deletion of PTEN gene may result in a new signal transduction pathway related to human malignant tumors. Studies have demonstrated a reduction of PTEN expression in advanced breast, prostate and other cancers.