PSMA (EP192)
Cat. No. 327R-1
Prostate-specific membrane antigen (PSMA) is a type II transmembrane glycoprotein with enzymatic activity. PSMA is expressed in normal prostate epithelial cells as well as prostate neoplastic cells. It has been demonstrated that PSMA expression is increased in prostate cancer and is correlated with disease progression. Although highly sensitive and specific for prostate, PSMA also labels a subset of non-prostate tissues, including the small intestine and kidney. PSMA is useful for identifying metastatic prostate carcinoma and distinguishing prostate carcinoma from urothelial carcinoma.

NKX3.1 (EP356)
Cat. No. 441R-1
NKX3.1 is a transcription factor that is specific for prostate cancer. It is useful in distinguishing prostate from bladder and other non-prostate tissue in instances of metastasis. This nuclear marker has higher sensitivity and specificity than the already established PSA for prostate carcinoma.
Genitourinary (GU) Pathology

**ERG (EP111)**

**Cat. No. 434R-1**
The transcription factor erythroblastosis virus E26 transforming sequence related gene (ERG) functions as a regulator of key cellular functions to promote endothelial homeostasis. Expression of ERG has been observed in both benign and malignant vascular endothelial tumors, such as hemangiomas and Kaposi sarcomas, respectively. carcinomas of the breast, colon, and urothelium have demonstrated absence of ERG expression, whereas presence of the protein has been confirmed in a subset of prostate carcinoma cases. Anti-ERG can be a useful tool for identifying vascular endothelial neoplasms and distinguishing prostate carcinoma from epithelial tumors of non-prostatic origin.

**GLUT3 (polyclonal)**

**Cat. No. 413A-1**
Glucose transporter membrane 3 (GLUT3) is a membrane-bound glucose transporter. Anti-GLUT3 reactivity is seen in the testis, spermatozoa, and brain. However, no reactivity with anti-GLUT3 was observed in other tissues. Anti-GLUT3 reactivity is seen in the majority of testicular germ cell tumors including seminoma, embryonal carcinoma, and yolk sac tumor. Anti-GLUT3 reactivity was not seen in non-germ cell tumors making anti-GLUT3 a useful immunohistochemical marker for the identification of testicular germ cell tumors.

**Oct-4 (MRQ-10)**

**Cat. No. 309M-1**
Oct-4 is a nuclear transcription factor that maintains and regulates pluripotency in embryonic stem and germ cells. It has a high sensitivity and specificity for seminoma/dysgerminoma, embryonal carcinoma, and the germ cell component of gonadoblastoma.

**SALL4 (6E3)**

**Cat. No. 385M-1**
SALL4 (6E3) is used in the identification of carcinomas of the gastrointestinal tract. It is seen to demonstrate high sensitivity for tumor cells in intratubular germ cell neoplasia, seminomas/ dysgerminomas, embryonal carcinomas, and yolk sac tumor. Anti-SALL4 also stains teratomas and mononucleated trophoblastic cells in choriocarcinomas.

**Smoothelin (R4A)**

**Cat. No. 377M-1**
Smoothelin is useful in distinguishing bladder muscularis mucosae (MM) from muscularis propria (MP) muscle bundles as it is exclusively observed in MP. Anti-smoothelin staining pattern of MP (positive) and MM (negative) makes IHC an attractive tool for the sometimes difficult task of staging bladder urothelial carcinoma.