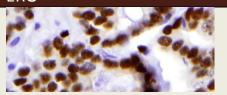
# Geisinger IHC's New Markers

### Genitourinary

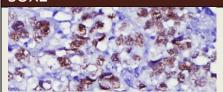
### **ERG**



A highly sensitive and specific marker for benign and malignant vascular tumors; it also expresses in 50% of prostatic carcinomas.

### Genitourinary

#### SOX2



Positive in a majority of squamous cell carcinomas and a high percentage of embryonal carcinomas and yolk sac tumors.

### **Soft Tissue**

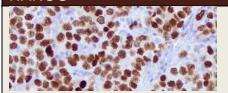
### **NKX2.2**



A transcription factor with a crucial role in differentiation of central nervous system and pancreatic islets. Expressed in 93% of Ewing sarcomas/PNET; more sensitive and specific than CD99 and Fli-1.

### Genitourinary

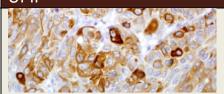
### **NANOG**



For testicular intratubular germ cell neoplasia (ITGCN), classic seminomas and embryonal carcinomas; usually negative in yolk sac tumors or teratomas.

### Genitourinary

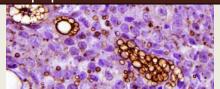
### UPII



Uroplakin II has been demonstrated to be a useful marker in identifying urothelial tumors with a higher diagnostic sensitivity than uroplakin III and similar specificity.

## Dermatopathology

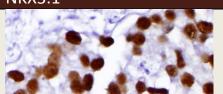
## Adipoph<u>ilin</u>



A potential marker to discriminate sebaceous carcinoma from BCC or SCC. Also positive in xanthomatous lesions and renal cell carcinoma metastatic to skin.

## Genitourinary

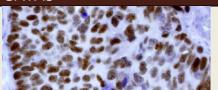
### **NKX3.1**



A highly sensitive and specific nuclear staining marker for both primary and metastatic prostatic adenocarcinomas, reported in virtually 100%.

### Genitourinary

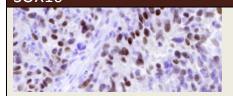
### **GATA3**



A highly sensitive and specific marker for breast and urothelial primaries when working on a tumor of unknown origin.

### Dermatopathology

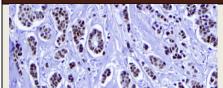
#### SOX10



A marker for melanocytic differentiation, particularly useful in making a diagnosis of desmoplastic melanoma because most of these tumors show strong diffuse positive nuclear reactivity.

## Breast

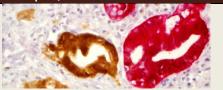
### GATA3



A highly sensitive and specific marker for breast and urothelial primaries when working on a tumor of unknown origin. Approximately 70% of ER-negative breast carcinomas are also positive for GATA3.

### **Pancreas**

### Maspin/VHL



Marker(s) for differentiation of ductal adenocarcinoma of the pancreas from non-neoplastic pancreatic tissues.

#### GI

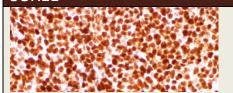
## Cadherin-17



Marker for intestinal differentiation. Usually positive in CDX2-, CK20colorectal cancer.

## Hematopathology

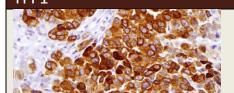
### SOX11



Specifically expressed in the nucleus of mantle cell lymphomas (MCL) compared with other lymphomas and benign lymphoid tissue; a useful marker for both cyclin D1-positive and negative MCL.

### **Breast**

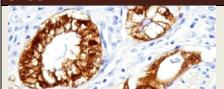
### TFF1



Usually positive in breast carcinomas and colon adenocarcinomas, and negative in lung adenocarcinomas, endometrial adenocarcinomas and ovarian serous carcinomas.

### **Pancreas**

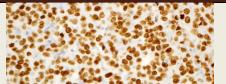
### S100P



Belongs to the family of \$100 calcium-binding proteins. Nuclear and cytoplasmic staining in most DAC; usually negative or cytoplasmic staining in normal/reactive ducts.

#### GI

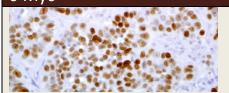
### SATB-2



Intestinal differentiation marker. Usually positive in CDX2-, CK20colorectal cancer. Potential marker to discriminate small intestinal from colorectal cancer. A specific marker for osteoblastic differentiation.

## Hematopathology

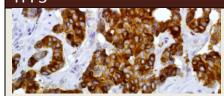
#### c-Mva



In addition to Burkitt lymphoma, c-Myc overexpression has been shown in colorectal carcinomas, radiationinduced angiosarcomas and other carcinomas.

#### **Breast**

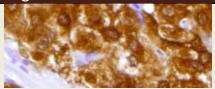
#### TFF3



Usually positive in breast carcinomas and colon adenocarcinoma, and negative in ovarian serous carcinomas.

### Liver

### Arginase-1



A highly sensitive and specific marker for hepatocellular carcinoma. It's a more sensitive and specific marker than HepPar1 and glypican-3 for detecting HCC.

## **Thyroid**

### TROP2



Marker for papillary thyroid carcinomas (PTC), positive in 90% of cases; usually negative in thyroid follicular adenoma or carcinoma.

Visit our website at <u>www.geisingerihc.com</u> for our most current antibody listing.

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