

Diagnosis	Immunohistochemical & Molecular Markers									
	* = preferred									
Adrenal cortical carcinoma	Inhibin	Synap	Melan-A	Calretinin	Vimentin	Chromogr	CK7	CK20		
Breast - ductal carcinoma	CK7	ER	PR	GATA3	Mammaglobin (50-70%)	GCDFP-15 (50-70%)	E-cadherin	HMWCK	CK20	PAX2
	ER/PR/HER2 on all newly diagnosed cases									
Breast - lobular carcinoma	CK7	ER	PR	GCDFP-15	GATA3	Mammaglobin (50-70%)	E-cadherin	CK20		
Breast - myoepithelial markers	p63	Calponin	SMMHC							
Cervix - squamous cell ca	p63	p16								
Cervix - adenocarcinoma	CK7*	p16 (>90%)*	CEA	ER	P63*	CK20	CDX2	TTF-1		
Cholangiocarcinoma	CK7	CK19	N-cadherin	HMWCK	CK20	CDX2				
Colon - adenocarcinoma	CK20	CDX2	CEA	CK7						
	MSI-colon IHC on all newly diagnosed cases of pT3 or pT4 w/o prior chemo/xrt									
Endometrioid carcinoma	CK7*	ER*	Vimentin*	CA125	CK20	CDX2	CEA*			
	*p16 can be positive by non-HPV mechanisms in poorly differentiated endometrial carcinomas (especially squamous morules)									
Esophagus - adenocarcinoma	CK7	CDX2								
Hepatocellular carcinoma	Glypican	Hepatocyte	AFP	CEA	CD10	CK7	CK20	PAX2		
	Dysplastic nodules also glypican positive, hepatic adenomas and normal hepatocytes are negative									
Lung - adenocarcinoma	CK7	TTF1	CEA	CD15	Napsin	HMWCK	CK5/6	Calretinin	WT-1	HBME D2-40
CDX-2										
Lung - squamous cell carcinoma	p63	HMWCK	Napsin (20%)	TTF-1						
Lung - small cell carcinoma	CKCKT	Synaptophysin	Chromogranin	TTF-1	NSE	CD56	CK20	Napsin		
Nasopharyngeal carcinoma	EBER (ISH)	CKCKT	p63							
Ovary - mucinous carcinoma	CK7	CK20	CDX2 (90%)	ER supports if positive						
Ovary - serous carcinoma	WT1*	CK7*	ER*	p53	CA125	PAX 2 (67%)	CK20	CDX2		
Paget's disease	CK7*	CAM5.2	EMA	CEA	Her2	S100*				
Pancreas - ductal carcinoma	CK7	HMWCK	CK20	N-cadherin (30%)	CDX2 (often + in duodenal/ampullary lesions)					
Prostate carcinoma	PSA	PSAP	p504 racemase	Androgen Receptor	Erg (40%)	CK7	HMWCK	CK20	p63	PAX2
GATA3										
	PIN4 cocktail includes p63 (nuclear, myoepithelial cells, brown), CK5/14 (nuclear, myoepithelial cells, brown), and racemase (cytoplasmic, most adenocarcinoma, red)									
Renal - clear cell carcinoma	RCC	CD10 (membranous)	Vimentin	PAX2	CK7	CD117	CK20			
Renal - papillary carcinoma	RCC	CD10 (membranous)	CK7	PAX2	Vimentin	p504s	AMACR	napsin	CK7	CK20
CD117										
Renal - chromophobe carcinoma	Hale's Colloidal Iron	CD117	CK7	PAX2	RCC	CD10	Vimentin			
Salivary - Ductal	Androgen Receptor	GCDFP-15	Her2	SOX10						
	SOX10 positive salivary gland tumors: acinic, adenoid cystic, epithelial myoepithelial, myoepithelial carcinomas, pleomorphic adenomas									
	SOX10 negative salivary gland tumors: salivary duct, mucoepidermoid, oncocytic carcinoma, oncocytomas, Warthin's									
Stomach:										
Intestinal type	CK7	CDX2	CK20							
Diffuse/signet ring type	CK7	CK20	E-cadherin	CDX2						
	HER2 IHC on newly diagnosed cases									
Thyroid - papillary & follic. carc.	TTF1	Thyroglobulin	CK7	HMWCK	Vimentin	HBME-1	Napsin			
Thyroid - medullary carcinoma	TTF1	Calcitonin	CK7							
Thymic carcinoma	CD117	CK5/6	CD5	P63						
Urachal carcinoma	CK20	CDX2	CK7							
Urothelial carcinoma	p63	CK7	CK5/6	HMWCK (34betaE12)	GATA3	CK20	PAX2			