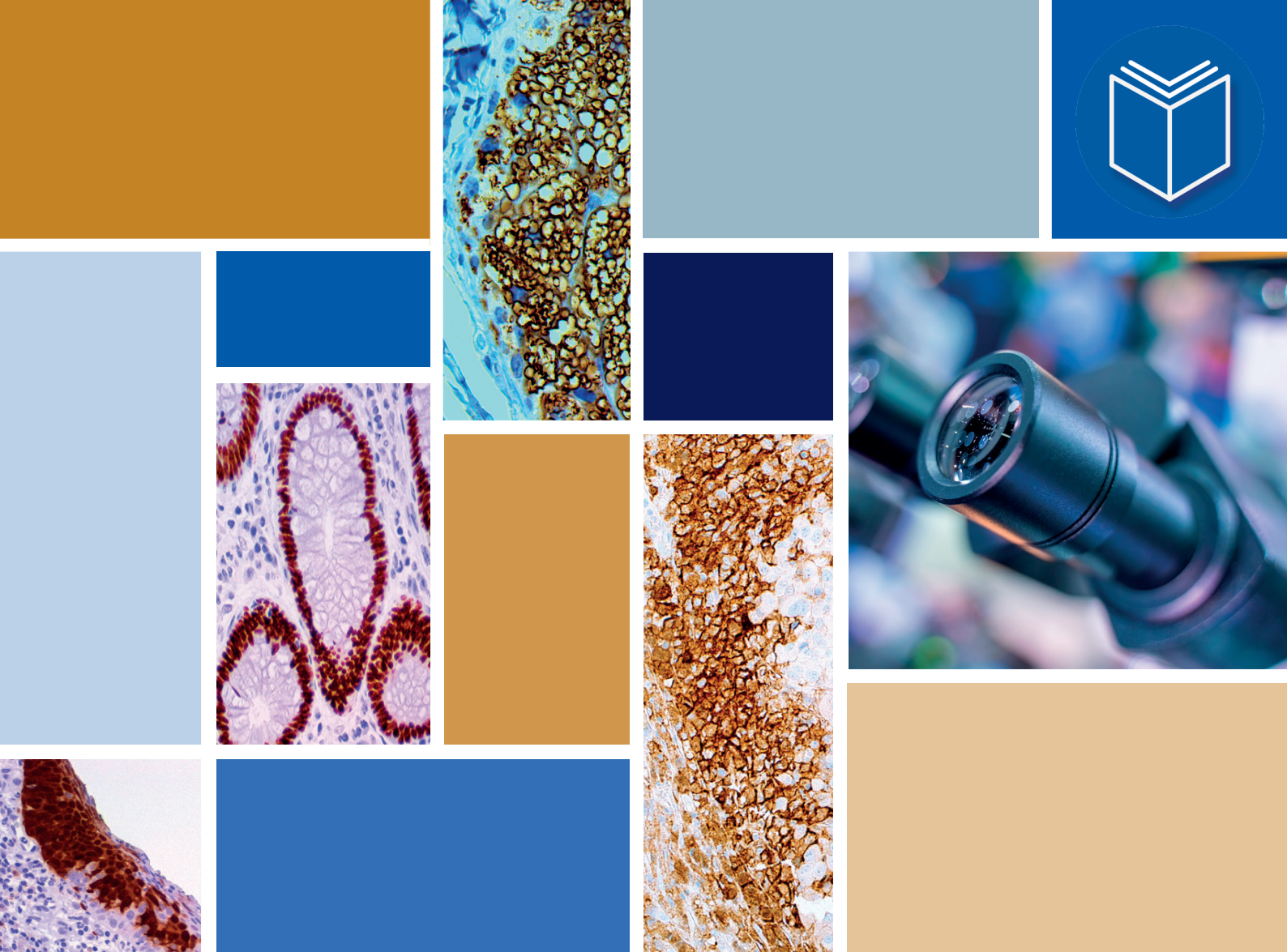




Antibody Grids

Auszug aus dem Katalog
Cell Marque™ Tissue Diagnostics Immunohistochemistry Vol. 12



Vom Sehen
zum Erkennen.

medac



Antibody Grids

 Anatomic / surgical pathology		3
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Adenocarcinoma and Non-Epithelial Neoplasms

	CD45	CDX-2	EZH2	GATA3	GCDFP-15	Napsin A	NKX3.1	P504s	PSA	SATB2	TTF-1
Prostate Adenocarcinoma	-	-	+	-	-	-	+	+	+	-	-
Breast Carcinoma	-	-	+	+	+	-	-	-	-	-	-
Colorectal Adenocarcinoma	-	+	+	-	-	-	-	-	-	+	-
Lung Adenocarcinoma	-	-	+/-	-	-	+	-	-	-	-	+
Lymphoma	+	-	+	-/+ ^a	-	-	-	-	-	-	-
Sarcoma	-	-	-	-	-	-	-	-	-	-/+ ^b	-

^a positivity observed in a subset of T-cell lymphomas, neoplastic cells from classical Hodgkin lymphoma but not those from the nodular lymphocyte-predominant Hodgkin lymphoma.
^b frequently positive in osteosarcoma.

Adrenal Neoplasms

	Calretinin	Chromogranin A	CK 8 & 18	CK Cocktail	Inhibin	MART-1	Neurofilament	STAR	Synaptophysin
Adrenocortical Adenoma	+	-	-/+	-/+	+	+	-	+	+/-
Adrenocortical Carcinoma	+	-	-/+	-/+	+	+	-	+	+/-
Pheochromocytoma	-	+	-	-	-	-	+	-	+

Carcinomas: β-Catenin - CK Cocktail

	β-Catenin	Ber-EP4	BRST-2	CD10	CDX-2	CEA	pCEA	CK OSCAR	CK 5	CK 7	CK 19	CK 20	CK Cocktail
Basal Cell Carcinoma		+									-		+
Bladder Adenocarcinoma	-		-	+	+	+	+	+	-	+		+	+
Breast Carcinoma		+	+		-	-	-	+	-	+		-	+
Cervical Carcinoma	-		-		-			+	-	+		-	+
Cholangiocarcinoma		+									+		+
Colorectal Adenocarcinoma	+	+	-	+	+	+	+	+	-	-		+	+
Endometrial Adenocarcinoma			-		-	-	-	+	-	+		-	+
Gastric Carcinoma	-	+	-	-	+	+	+	+	-	+		-	+
Hepatocellular Carcinoma	-	-	-	+	-		+	-	-	-	-	-	-
Lung Adenocarcinoma	-	+	-	-/+	-	+	+	+	-	+		-	+
Lung Squamous Cell Carcinoma									+				
Merkel Cell Carcinoma		+			-					-	-	+	+
Ovarian Carcinoma, Mucinous			-	-	+	-	-	+	+	+		-	+
Ovarian Carcinoma, Non Mucinous			-		-		-		+	+		-	
Pancreatic Carcinoma	-		-	+/-	-	+	+	+	-	+		-	+
Prostate Adenocarcinoma	-		-	+			-	+	-	-		-	
Renal Cell Carcinoma			-	+			-	+	-	-		-	
Salivary Gland Carcinoma	-		+	-/+	-	+	+	+	+	+		-	+
Sarcomatoid Carcinoma		+									-		+
Spindle Cell Carcinoma			-				-	+	-	-		-	+
Squamous Cell Carcinoma	-		-	-	-	-	-	+	+	-		-	+
Sweat Gland Carcinoma	-		-	-	-	+	+	+	+	+		-	+



Carcinomas: β-Catenin - CK Cocktail (continued)

	β-Catenin	Ber-EP4	BRST-2	CD10	CDX-2	CEA	pCEA	CK OSCAR	CK 5	CK 7	CK 19	CK 20	CK Cocktail
Thyroid Carcinoma			-				-	+	-	+	+/-	-	
Urothelial Carcinoma	-		-	+	-	-	-	+	+	+		+	+

Carcinomas: CK, HMW - Villin

	CK, HMW	CK, LMW	MOC-31	ER	Hep Par-1	p63	PR	RCC	S100P	TTF-1	Villin
Basal Cell Carcinoma			+/-		-						
Bladder Adenocarcinoma	+	+		-	-	-	-	-		-	+
Breast Carcinoma	+	+	+	+	-	-	+	-	-	-	
Cervical Carcinoma				-	-	-	-	-		-	-
Cholangiocarcinoma			+		-				+		
Colorectal Adenocarcinoma	-	+	+		-	-		-		-	+
Endometrial Adenocarcinoma					-			-		-	
Gastric Carcinoma			+	-	-	-	-	-		-	+
Hepatocellular Carcinoma	-	-	-		+	-		-		+ (cytoplasmic)	-
Lung Adenocarcinoma	+	+	+	-	-	-	-	-	+	+	-
Lung Squamous Cell Carcinoma	+					+		-	-	-	-
Merkel Cell Carcinoma			+		-	-				-	-
Ovarian Carcinoma, Mucinous	+	+		-	-	-	-	-	-	-	
Ovarian Carcinoma, Non Mucinous	+	+			-			-		-	
Pancreatic Carcinoma	+/-	+		-	-	-	-	-		-	-
Prostate Adenocarcinoma	-	+			-			-	-	-	-
Renal Cell Carcinoma	-	+			-	-		+	-	-	
Salivary Gland Carcinoma	+	+		-	-	+	-	-			-
Sarcomatoid Carcinoma			-		-						
Spindle Cell Carcinoma	+				-	-		-			
Squamous Cell Carcinoma	+	+		organ specific	-	+	organ specific	-		-	
Sweat Gland Carcinoma	+	+		-/+	-	+	-/+	-			-
Thyroid Carcinoma	+	+			-	-		-		+	
Urothelial Carcinoma	+	+		-	-	+	-	-	+	-	-

Carcinomas and Sarcomas with Epithelioid Morphology (Features)

	CD34	CAM 5.2	CK Cocktail	EGFR	PAX-8	SOX-10
Breast Carcinoma	-	+	+	+	-	-/+
Lung Carcinoma	-	+	+	+	-	-
Colorectal Adenocarcinoma	-	+	+	+	-	-
Hepatocellular Carcinoma	-	+	-	+	-	-
Renal Cell Carcinoma	-	-/+	+	+	+	-
Synovial Sarcoma	-	+	+	+	-	-
Epithelioid Sarcoma	+	+/-	+	+	-	-
Malignant Peripheral Nerve Sheath Tumor	-	+/-	+/-	+	-	+/-

Carcinomas from Thyroid and Other Sites

	CEA	Chromogranin A	CK 19	Galectin-3	HBME-1	PAX-8	Synaptophysin	Thyroglobulin	TPO	TTF-1
Nomral Thyroid Follicles	-	-	-	-/+	-/+	+	-	+	+	+
Follicular Thyroid Carcinoma	-	-	-/+	-/+	-/+	+	+/-	+	+	+
Papillary Thyroid Carcinoma	-	-	+	+	+	+	+/-	+	+	+
Medullary Thyroid Carcinoma	+	+	-/+	-/+	-/+	-	+	-	-	+
Renal Cell Carcinoma	-/+	-	-	-	-	+	-	-	-	-
Breast Carcinoma	+/-	-	-	-	-	-	-	-	-	-
Colorectal Adenocarcinoma	+	-	-	-	-	-	-	-	-	-
Lung Adenocarcinoma	+	-	-	-	-	-	-	-	-	+

Colon vs. Ovarian Carcinoma

	CA-125	Cadherin-17	CDX-2	CEA	CK 7	CK 20	SATB2	WT1
Ovarian Carcinoma, Serous	+	-	-	+	+	-	-	+
Ovarian Carcinoma, Mucinous	-	-	+	-	+	+	-	-
Ovarian Carcinoma, Endometrioid	+	-	-	-	+	-	-	+
Colorectal Carcinoma	-	+	+	+	-	+	+	-

Colon vs. Prostate Adenocarcinoma

	AR	CA19-9	CDX-2	CEA	CK 20	NKX3.1	P504s	PSA	SATB2
Colon Adenocarcinoma	-	+	+	+	+	-	+	-	+
Prostate Adenocarcinoma	+	-	-	-	-	+	+	+	-

Comparison of Immunoreactivity of PHH3 and Ki-67 in the Cell Cycle

Cell Cycle	PHH3	Ki-67
G0 phase	-	-
Interphase		
G1 phase	-	+
S phase	-	+
G2 phase	-	+
Mitosis phase		
Prophase	+	+
Metaphase	+	+
Anaphase	+	+
Telophase	+	+



Differential Diagnosis of Adenocarcinomas from Breast, Lung and Prostate

	AR	ER	BRST-2	Mammaglobin	Napsin A	NKX3.1	PR	PSA	PSAP	TTF-1
Breast Carcinoma	-	+	+	+	-	-	+	-	-	-
Lung Carcinoma	-	-	-	-	+	-	-	-	-	+
Prostate Carcinoma	+	-	-	-	-	+	-	+	+	-

Differential Diagnosis of Adrenocortical Neoplasms from their Histologic Mimics

	Arginase-1	Calretinin	CA IX	CD10	pCEA	Chromogranin A	CK 8 & 18	CK Cocktail	EMA	Hep Par-1	Inhibin
Adrenocortical Adenoma	-	+	-	-	-	-	-/+	-/+	-	-	+
Adrenocortical Carcinoma	-	+	-	-	-	-	-/+	-/+	-	-	+
Pheochromocytoma	-	-	-	-	-	+	-	-	-	-	-
Renal Cell Carcinoma	-	-	+	+	-	-	+	+	+	-	-
Hepatocellular Carcinoma	+	-	-	-	+	-	+	+	+	+	-

Differential Diagnosis of Adrenocortical Neoplasms from their Histologic Mimics (continued)

	Ksp-cadherin	MART-1 (A103)	Neurofilament	PAX-2	PAX-8	RCC	SF-1	STAR	Synaptophysin
Adrenocortical Adenoma	-	+	-	-	-	-	+	+	+/-
Adrenocortical Carcinoma	-	+	-	-	-	-	+	+	+/-
Pheochromocytoma	-	-	+	-	-	-	-	-	+
Renal Cell Carcinoma	+	-	-	+	+	+	-	-	-
Hepatocellular Carcinoma	-	-	-	-	-	-	-	-	-

Differential Diagnosis of Metastatic Adenocarcinomas

	Arginase-1	CA IX	Cadherin-17	CDX-2	GATA3	HBME-1	Napsin A	PAX-8	S100P	TTF-1
Breast Carcinoma	-	-	-	-	+	-	-	-	-	-
Lung Adenocarcinoma	-	+	-	-	-	-	+	-	-	+
Thyroid Carcinoma	-	-	-	-	-	+	-	+	-	+
Gastric Adenocarcinoma	-	+/-	-/+	+	-	-	-	-	-	-
Colon Adenocarcinoma	-	+/-	+	+	-	-	-	-	-	-
Pancreatic Ductal Carcinoma	-	+/-	-/+	+	-	-	-	-	+	-
Hepatocellular Carcinoma	+	-	-	-	-	-	-	-	-	-
Urothelial Carcinoma	-	-	-	-	+	-	-	-	+	-
Renal Cell Carcinoma	-	+	-	-	-	-	-/+	+	-	-

Differential Diagnosis of Thyroid and Parathyroid Tumors

	Calcitonin	Chromogranin A	Galectin-3	PTH	PAX-8	S-100	Synaptophysin	TTF-1
Parathyroid Tumors	-	+	-	+	+/-	-	+	-
Follicular Thyroid Tumors	-	-	+	-	+	+/-	-	+
Medullary Thyroid Carcinoma	+	+	-	-	+	-	+	+

Epithelioid Cell Neoplasms

	CD34	CK 35βH11	Desmin	DOG1	EMA	FLI-1	HMB-45	INI-1	S-100	TFE3
Epithelioid Sarcoma	+	+/-	+	-	+	-	-	+	-	-
Epithelioid Angiosarcoma	+	+	-	-	-	+	-	+	-	-
MPNST	-/+	-/+	+	-	-	-	-	+/-	+	-
Leiomyosarcoma	-/+	-/+	+	-	-	-	-	-	-	-
GIST	+	-	-	+	-	-	-	-	-	-
Endothelial Tumors	+	-	-	-	-	+	-	+	-	-
PEComa	-	-	-	-	-	-	+	-	+	-
Clear Cell Sarcoma	-	-	-	-	-	-	-	-	+	-
Alveolar Soft Part Sarcoma	-	-	-	-	-	-	-	-	-	+
Melanoma	-	-	-	-	-	-	+	-	+	-
Plasmacytoma	-	-	-	-	+	-	-	-	-	-

Ewing Sarcoma (ES) vs. Other Small Round Cell Tumor Lesions

	CD45	CD99	CK 8 & 18	CK Cocktail	Desmin	FLI-1	Myogenin	Neurofilament	NKX2.2	PHOX2B	S-100	Synaptophysin	WT1
Ewing Sarcoma	-	+	-	-	-	+	-	-	+	-	-	-	-
Mesenchymal Chondrosarcoma	-	+	-	-	-/+	-	-	-	+	-	+/-	-	-
Olfactory Neuroblastoma	-	-	-	-	-	-	-	-/+	+	+	-	+	-
Neuroblastoma	-	-	-	-	-	-	-	+	-	+	-	+	-
Small Cell Carcinoma	-	-	+	+	-	-	-	-	-	-	-	+	-
Poorly Differentiated Synovial Sarcoma	-	+	+	+	-	-	-	-	-	-	-	-	-
Desmoplastic Small Round Cell Tumor	-	+/-	+	+	+	-	-	-	-	-	-	-	+
Small Cell Melanoma	-	-/+	-	-	-	-	-	-	-	-	+	-	-
Wilms Tumor	-	-	+/-	+/-	+	-	-	-	-	-	-	-	+
Rhabdomyosarcoma	-	-	-	-	+	-	+	-	-	-	-	-	-
Lymphoma	+	-	-	-	-	-	-	-	-	-	-	-	-

Identification of Meningiomas from Histologic Mimics

	ALDH1A1	CD34	Claudin 1	E-cadherin	EMA	GFAP	S-100	STAT6
Meningothelial Meningioma	-	-	+	+	+	-	-	-
Atypical Meningioma	-	+	+	+	+	-	-	-
Fibrous Meningioma	-	-	-	+	+	-	+	-
Solitary Fibrous Tumor	+	+	-	-	-	-	-	+
Meningeal Hemangiopericytoma	+	+	-	-	-	-	-	-/+
Schwannoma	-	-	+/-	+	-	+	+	-



Liver Neoplasms

	Arginase-1	Canalicular CD10	pCEA	Glypican-3	Hep Par-1
Hepatic Adenoma	+	+	+	-	+
Hepatocellular Carcinoma	+	+	+	+	+
Metastatic Adenocarcinoma	-	-	-	-	-

Liver: Malignant vs. Benign

	A1ACT	A1AT	AFP	Arginase-1	CD34	mCEA	pCEA	Glypican-3	Hep Par-1	p53	TTF-1
Hepatocellular Carcinoma	-/+	-/+	-/+	+	+	-	+	+	+	+	(cytoplasmic)
Hepatoblastoma	+	+	+		-	-	+	+	+	+	-
Benign Liver Nodules	+/-	+/-	-	+	-	-	-	-	+	-	(cytoplasmic)

Lung Small Cell Carcinoma vs. Merkel Cell Carcinoma

	CD117	CEA	Chromogranin A	CK 20	E-cadherin	Neurofilament	Synaptophysin	TTF-1
Merkel Cell Carcinoma	+	-	+	+	+	(nuclear)	+	-
Lung Small Cell Carcinoma	+/-	-	-	-	-	-	+	+

Lymph Node

	CD1a	CD14	CD21	CD35	CD68	CD163	Lysozyme	PD-1	S-100
Reactive Histiocytosis	-	+	-	-	+	-	+	-	-
Langerhans Cell Histiocytosis	+	+	-	-	+	+	+	-	+
Sinus Histiocytosis with Massive Lymphadenopathy	-	+	-	-	+	+	+	-	+
Follicular Dendritic Cell Sarcoma	+/-	-	+	+	-	-	-	-	-
Dermatopathic Lymphadenitis	+	-	-	-	-	+	+	-	+

Lymph Node: Melanocytic Lesions vs. Interdigitating Dendritic Cells

	CK Cocktail	HMB-45	MART-1	S-100	SOX-10
Metastatic Melanoma	-	+	+	+	+
Nevus Cell	-	+	+	+	+
Interdigitating Dendritic Cells	-	-	-	+	-

Micropapillary Carcinomas

	CK 7	CK 20	CK, HMW	EMA	ER	Mammaglobin	PAX-8	TTF-1	Uroplakin III	WT1
Bladder	+	+/-	+	-	-	-	-	-	+	-
Breast	+	-	-	+	+	+	-	-	-	-
Lung	+	-	-	+	-	-	-	+	-	-
Ovary	+	-	+	-	+	-	+	-	-	+

Mucin Expression in Neoplasms

	MUC1	MUC2	MUC5AC	MUC6
Pancreatic Adenocarcinoma	+	-	+	-
Cervical Adenocarcinoma	+	-	+	-
Paget Extramammary	+	-	+	-
Cholangiocarcinoma	+	-	+/-	-
Salivary Duct Adenocarcinoma	-	+	-	+
Colon Carcinoma, Signet Ring	-	+	-	-
Prostate Carcinoma	-	+/-	-	-
Pancreatic Intraductal Papillary Carcinoma	-	+	+	+
Adrenocortical Carcinoma	-	-	-	-
Breast Carcinoma	+	-	-	-
Endometrial Carcinoma	+	-	-	-
Appendiceal Adenocarcinoma	-	+	+	-
Barrett Esophagus	+	+	+	-
Pancreatic Mucinous Cystic	-	-	+	-
Breast Colloid Carcinoma	+	+	-	+

Mucins Expression in Organs

	MUC1	MUC2	MUC4	MUC5AC	MUC6
Stomach	+	-	+	+	+
Small Intestine	-	+	-	-	+
Colon	-	+	-	-	
Pancreas	+	-	-	-	+

Neuroendocrine Neoplasms

NET origins	Calcitonin	CDX-2	CK Cocktail	Islet-1	Neurofilament	PAX-8	SATB2	TTF-1	Vimentin
Thyroid	+		+	+	-	+	-	+	-
Lung, Poorly Differentiated	-	-	+	+	-	-	-	+	-
Lung, Well Differentiated/ Moderately Differentiated		-	+	-	-	-	-	+	-
Stomach		-	+	-	-	-	-	-	-
Duodenum		-	+	+	-	+	-	-	-
Pancreas		-	+	+	-	+	+	-	-
Jejunioilecum			+	+	-	-	+	-	-
Appendix	-		+	+	-	-	+	-	-
Colon	-		+/-	+	-	-		+	-
Rectum	-		+/-	+	+	-	+	+	-
Ovary	-		-/+	+		-		-	-
Skin	-			+	+	-	+		-
Paraganglioma/ pheochromocytoma	-	-	-		+	+		-	+



Neuroendocrine Tumors from Different Anatomical Locations

	CD56	CDX-2	Chromogranin A	CK 8 & 18	CK Cocktail	Islet-1	NKX2.2	P53	Synaptophysin	TTF-1
Pancreatic	+	+	+	+	+	+	+	-	+	-
Gastrointestinal Tract	-/+	+/-	+	+	+	+/-	+	-	+	-
Bronchopulmonary, Poorly Differentiated	+	-	+/-	+	+	+	-	+	+	+
Bronchopulmonary, Moderately Differentiated	+/-	-	+	+	+	-	-	-	+	-/+
Bronchopulmonary, Well Differentiated	+/-	-	+	+	+	-	-	-	+	-

PEComa

	Actin SM	Caldesmon	Calponin	CD63	CD68	Desmin	HMB-45	MART-1	S-100
Angiomyolipoma	+	+	+	+	+	-	+	+	-
Lymphangiomyomatosis	+	+	+	+	-	-	+	+	-
Extrapulmonary Clear Cell Tumor	+	-	-	+	-	-	+	+	+
Primary Cutaneous PEComa	-/+	-	-	+	+/-	-	+	+	-
Pulmonary Clear Cell Sugar Tumor	-	-	-	+	+/-	-	+	+	+/-

Retroperitoneal Lesions

	Chromogranin A	CD99	GFAP	Neurofilament	NSE	PGP 9.5	S-100	Synaptophysin
Neuroblastoma	+	-	-/+	+	+	+	-	+
Ganglioneuroblastoma	+	-	+	+	+	+	+	+
Ganglioneuroma	+	-	+	+	+	+	+	+
Leiomyosarcoma	-	-	-	-	-/+	-/+	-	-
Rhabdomyosarcoma	-	-	-	-	-	+	-	-
Synovial Sarcoma	-	+/-	-	-	-	-	-/+	-

Sex Hormone Receptors and Differential Diagnosis of Selected Carcinomas

	AR	BCA-225	BRST-2	ER	Mammaglobin	NKX3.1	PSA	PSAP	PR	TTF-1
Salivary Duct Carcinoma	+	+	+	-	-	-	-	-	-	-
Breast Carcinoma	+	(apocrine)	+	+	+	-	-	-	+	-
Prostate Carcinoma	+	-	-	-	-	+	+	+	-	-
Lung Carcinoma	-	+/-	-	+	-	-	-	-	-	+

Spindle Cell Tumors

	Actin MS	Actin SM	ALK Protein	β-Catenin	BCL2	Caldesmon	Calponin	CD34	CD56	CD117	CK Cocktail	Desmin	DOG1
Myofibroblastic Tumor	+	+	+	-	-	+	+	-	+	-	-	+	-
Spindle Cell Carcinoma	-	-	-	+/-	-	-	-	-	-	-	+	-	-
Neurofibroma	-	-	-	-	+	-	-	-	+	-	-	-	-
Rhabdomyosarcoma	+	-	-	-	+	-	-	-	-	+	-	+	-
Endometrial Stromal Tumor	+	+	-	+/-	-	-	+	-	-	-	-	-	-
Leiomyoma	+	+	-	-	-	+	+	-	-	-	-	+	-
Fibromatosis	-	+	-	+	-	-/+	-	-	-	-	-	-	-
GIST	-	-	-	-	+	+	-	+	-	+	-	-	+
Schwannoma	-	-	-	-	+	-	-	-	+	-	-	-	-
Leiomyosarcoma	+	+	-	-	-	+	+	-	+	-	-/+	+	-
MPNST	-	-	-	-	+	(focal)	-/+	-	-/+	-	-	-	-

Spindle Cell Tumors (continued)

	EMA	Myogenin	SM Myosin	PGP 9.5	S-100
Myofibroblastic Tumor	-	-	-	-	-
Spindle Cell Carcinoma	+/-	-	-	+	-
Neurofibroma	-	-	-	+	+
Rhabdomyosarcoma	+/-	+	-	-	-
Endometrial Stromal Tumor	-	-	-	+	-
Leiomyoma	-	-	+	-	-
Fibromatosis	-	-	-	+	-
GIST	-	-	-	-	-
Schwannoma	-	-	-	-	+
Leiomyosarcoma	+/-	-	+	-	-
MPNST	-	-	-	+	+/-

Spindle Cell Lesions

	Actin SM	CD34	CD99	Claudin 1	Desmin	EMA	GLUT1	S-100
Perineurioma	+/-	+	+	+	-	+	+	-
Neurofibroma	-	-	-	+	-	-/+	-	+
Schwannoma	-	-	-	-	-	-	-	+

Spindle Cell Melanoma vs. Epithelioid Peripheral Nerve Sheath Tumor

	CD63	Collagen IV	HMB-45	NGFR	PNL2	S-100	SOX-10	Tyrosinase
Spindle Cell Melanoma	+	-	+	+	+	+	+	+
Peripheral Nerve Sheath Tumor	+	+	+	+	-	+	+	+



Thymus

	BG8	CD1a	CD5	CD57	CD117	CEA	CK 5 & 6	CK 14	GLUT1	MOC-31	MUC1
Thymic Carcinoma	+	-	+	-	+	+	+	+	+	-/+	+
Thymoma	-	+	-	+	-	-	-/+	-	-/+	+	-/+

Thyroid: Malignant vs. Benign

	Calcitonin	Diffuse CK 19	Galectin-3	HBME-1	p27	Thyroglobulin	TTF-1
Papillary Carcinoma	-	+	+	+	-/+	+	+
Follicular Carcinoma	-	-	+	+/-	-	+	+
Medullary Carcinoma	+	-	-	+	+/-	-	+
Thyroid Follicular Cells	-	-	-	-	+	+	+

Various Germ Cell Tumor Components

	AFP	CD30	CD117	D2-40	Glypican-3	hCG	LIN28	Nanog	Oct-4	PLAP	SALL4	SOX-2
GCNIS/GNB	-	-	+	+	-	-	+	+	+	+	+	-
Seminoma/Dysgerminoma	-	-	+	+	-	-	+	+	+	+	+	-
Spermatocytic Seminoma	-	-	-/+	-	-	-	-	-	-	-	+/-	-
Embryonal Carcinoma	-/+	+	-	-	-	-	+/-	+	+	+/-	+	+
Yolk Sac Tumor	+	-	+/-	-/+	+	-	-	-	-	-/+	+	-
Choriocarcinoma	-	-	-	-	+	+	-	-	-	-	+/-	-
Teratoma	-/+	-	-	-	+/-	-	-	-	-	-	-/+	-/+

Various Lesions with Melanocytic or Myomelanocytic Differentiation

	Actin SM	CD63	Desmin	HMB-45	KBA.62	MART-1	MITF	MUM1	PNL2	S-100	S100β	SOX-10	Tyrosinase
Intradermal Nevus	-	-	-	-	+	+	+	+	+	+	+	-	+
Intranodal Nevus Cells	-	-	-	-	+	+	+	+	+	+	+	-	+
Junctional Nevus	-	-	-	+	+	+	+	+	+	+	+	-	+
Conventional Melanoma	-	+	-	+	+	+	+	+	+	+	+	+	+
Spindle Cell Melanoma	-	+	-	-/+	+	-/+	+/-	+		+	+	+	-/+
Desmoplastic Melanoma	-/+		-	-	+	-	-	-	-	+	+	+	-
Clear Cell Sarcoma	-	-	-	+	+	+	+	+	+	+		+	
Angiomyolipoma	+	+	+	+	-	+	+	-	+	+		+	-/+
Lymphangi leiomyomatosis	+	+	+	+	-/+	-/+	+	-	+	-			
PEComa	+	+	-/+	+	-	+	+/-	-	+	-		-	

Breast/gyn pathology

Breast Carcinoma

	CA15-3	CA19-9	CD117	CK 5	CK 7	CK 20	ER	p63	PR
Infiltrating Ductal Carcinoma	+	-	-	-	+	-	+	-	+
Adenoid Cystic Carcinoma	+	+	+	+	+	-	-	+	-

Breast Lesion

	CK 34βE12	E-cadherin	BRST-2	Mammaglobin	p120
Lobular	+	-	+	+	+
Ductal	-	+	+	+	+

Cervical Epithelial Neoplastic Lesions

	Ki-67	p16	p27	Stathmin
CIN I	+	+	-	-
CIN II	+	+	+	+/- (45%)
CIN III	+	+	+	+
Squamous Cell Carcinoma	+	+	+	+
Adenocarcinoma <i>in situ</i>	+/-	+	+	+
Endocervical Carcinoma	+	+	+	+
Ectocervical Mucosa	-/+	Few +	-/+	- (Basal layer +)
Endocervical Tissue	-	-	-	-

Cervix

	BCL2	CK 17	Ki-67	MCM3
Cervical Intraepithelial Neoplasia	-	-	+	+
Tubo-Endometrial Metaplasia	+	+	-	-
Microglandular Hyperplasia	-	-	-	-

Cervix Neoplasia

	CK 8	CK 17	p16
CIN I	-/+	-/+	+
CIN II	-/+	+	+
CIN III	+	+	+



Non-Invasive Breast Lesions vs. Invasive Ductal Carcinoma

	Calponin	CD10	CK 5 & 6	CK 5 & 14	SM Myosin
Sclerosing Adenosis	+	+	+	+	+
Breast Carcinoma <i>in situ</i> (Myoepithelial Cells)	+	+	+	+	+
Infiltrating Breast Carcinoma	-	-	-	-	-

Ovarian Carcinomas

	CA-125	CDKN2A	CEA	ER	PAX-8	PR	Tp53	WT1
Low Grade Serous	+	-	+	+	+	+/-	-	+
High Grade Serous	+	+	+	+	+	-	+	+
Mucinous	-	-	-	-	+/-	-	+/-	-
Endometrioid	+	-	-	+	+	+	-	-
Clear Cell Carcinoma	+	-	-	-	+	-	-	-

Placental Trophoblastic Cells

	1st Trimester		2nd Trimester		3rd Trimester	
	hCG	hPL	hCG	hPL	hCG	hPL
Cytotrophoblast	-	-	-	-	-	-
Intermediate Trophoblast	1-24%	25-49%	-/+	50-74%	1-24%	1-49%
Syncytiotrophoblast	>75%	1-24%	25-49%	50-74%	1-24%	>75%

Placental Trophoblastic Proliferations

	CK OSCAR	hCG	hPL	p57	PLAP	Vimentin
Partial Mole	+	-/+	-/+	+	+	-
Complete Mole	+	+	-/+	-	-/+	-
Choriocarcinoma	+	+	-/+	-	-/+	-/+
Placental Site Tumor	+	+/-	+	+	+	+

Sex Cord Stromal Tumors

	Calretinin	CD99	CK 7	CK 8 & 18	CK Cocktail	EMA	Inhibin	MART-1	Nuclear β-Catenin	STAR	Vimentin
Leydig Cell Tumor	+	+		-	-	-	+	+	-	+	+
Sertoli-Leydig Cell Tumor	+	+	+	+	+	-	+	+	+	+	+
Sertoli Cell Tumor	+/-	+		+	+	-	+/-	-	+	-	+
Granulosa Cell Tumor	+	+	-	-/+	-/+	-	+	-	-	+	+
Sex Cord-Stromal Tumor, NOS	+/-	+		-/+	-/+	-	+/-	-	-		+
Fibroma/Thecoma	+	-		-	-	-	+	-	-	-	+
Gynandroblastoma	+	-/+					+				+
Gonadoblastoma	+	+	-			-	+	-			+

Uterus: Trophoblastic Proliferations

	CK Cocktail	hCG	hPL	p57	PLAP	Vimentin
Partial Mole	Strong, diffuse	Weak, diffuse	Weak, diffuse	+	+	-
Complete Mole	Strong, diffuse	Strong, diffuse	Weak, focal	-	Weak, focal	-
Choriocarcinoma	Strong, diffuse	Strong, diffuse	Weak, focal	-	Weak, focal	-/+
Placental Site Tumor	Strong, diffuse	Strong, focal	Strong, diffuse		Strong, diffuse	Strong, diffuse



Cutaneous Epithelial Neoplasms

	Adipophilin	Ber-EP4	CK 5 + 14	CK Cocktail	EMA
Sebaceous Adenoma	+	+	+	+	+
Sebaceous Carcinoma	+	+	+	+	+
Basal Cell Carcinoma	-	+	-	+	-
Squamous Cell Carcinoma	-	-	+	+	+

Cutaneous Lesions

	CK Cocktail	HMB-45	MART-1	S-100	SOX-10
Conventional Melanoma	-	+	+	+	+
Desmoplastic Melanoma	-	-	-	+/-	+
Squamous Cell Carcinoma	+	-	-	-/+	-
Basal Cell Carcinoma	+	-	-	-	-
Merkel Cell Carcinoma	+	-	-	-/+	-

Cutaneous Neoplasms

	AR	BCL2	Ber-EP4	CD10	CD34	CK 15	CK 19	CK 20
Basal Cell Carcinoma	+	+	+	+	-	-	+	-
Trichoepithelioma	-	+	+	-	+	+	+	+
Merkel Cell Carcinoma	-	+	+	-	-	-	+	+
Microcystic Adnexal Carcinoma	-	+	-/+	+/-	-	+	+	-
Sebaceous Carcinoma	+	+/-	+	+/-	-		-	-
Sebaceous Adenoma	+	+	+	-	-		-	-



Melanomas

	HMB-45	Nestin	S-100	SOX-10
Desmoplastic Melanoma	-	+	+	+
Conventional Melanoma	+	+	+	+

Melanotic Lesions

	CD63	Factor XIIIa	HMB-45	KBA.62	MART-1	MiTF	NGFR	PNL2	S-100	SOX-10	Tyrosinase	WT1
Adrenal Cortical	-	-	-	-	+	-		-	+	-	-	
Adult Melanocytes	+	-	-	+	+	+	-	+	+	+	+	
Angiomyolipoma	+	-	+	-	+	+		+	+		-	
Dermatofibroma	-	+	-	-	-	-		-	-	-	-	
Intradermal Nevus	-	-	-	+	+	+	+	+	+	-	+	+/-
Intranodal Nevus Cells	-	-	-	+	+	+		+	+	-	+	
Junctional Nevus	-	-	+	+	+	+	+	+	+	-	+	+/-
Metastatic Melanoma	+	-	+	+	+	+	-	+	+	+	+	+
Primary Melanoma	+	-	+	+	+	+	-	+	+	+	+	+
Spindle Cell Melanoma	+	-	+	+	+	+	+	+	+	+	+	+

Merkel Cell Carcinoma vs. Cutaneous Small Cell Tumors

	CD45	CD117	Chromogranin A	CK 5 & 6	CK 20	CK, pan	HMB-45	Neurofilament	S-100	Synaptophysin	TTF-1	Vimentin
Merkel Cell Carcinoma	-	+	+	-	+	+	-	+	-	+	-	-
Small Cell Carcinoma	-	+/-	+	-	-	+	-	-	-	+	+	-
Lymphoma	+	-	-	-	-	-	-	-	-	-	-	+/-
Small Cell Melanoma	-	+	-	-	-	-	+	-	+	-	-	+
Squamous Cell Carcinoma	-	-	-	+	-	+	-	-	-	-	-	-

Neuroid Skin Lesions

	CD57	GFAP	MBP	S-100
Neuroma	+	-	+	+
Neurotised Nevi	-	-	-	+
Neurofibroma	+	-	+	+

Skin Adnexal Tumors

	BRST-2	CD15	CK 7	CK 20	EMA	S-100
Merkel Cell Carcinoma	-	-	-	+	+	-
Sebaceous Tumor	-	+	+	-	-	-
Apocrine Tumor	+	+/-	+	-	+/-	-
Eccrine Tumor	-	-	+	-	+	+

Skin: Basal vs. Squamous Cell Carcinoma

	BCL2	CK 8 & 18	CK Cocktail	EMA	Ep-CAM	UEA-1
Basal Cell Carcinoma	+	-/+	+	-	+	-
Squamous Cell Carcinoma	-	-	+	+	-	+

Skin: Dermatofibrosarcoma Protuberans (DFSP) vs. Dermatofibroma Fibrous Histiocytoma (DF-FH)

	CD10	CD34	CD163	CK Cocktail	Desmin	Factor XIIIa	NGFR	p63	S-100
DFSP	+/-	+	-	-	-	-	+	-	-
DF-FH	+	-	-	-	-	+	-	-	-

Skin: Pagetoid Tumors

	CEA	CK, HMW	CK, LMW	S-100	Vimentin
Melanoma	-	-	-	+	+
Paget’s Disease	+	-	+	-/+	-
Bowen’s Disease	-	+	+	-	-

Skin Neoplasms

	CAM 5.2	CK 5	CK 7	CK 10	CK 14	CK 17	CK 19	CK 20
Skin Squamous Cell Carcinoma	+	+	+/-	+/-	+	+	+	-
Basal Cell Carcinoma	+/-	+	+/-	+/-	+	+	+/-	-
Extramammary Paget’s Disease	+	-	+/-	-	-	-	+	-/+
Sebaceous Carcinoma	+/-	+	+	+/-	+	+/-	+/-	-
Merkel Cell Carcinoma	+	-	-	-	-	-	+	+
Bowen’s Disease	+/-	+	-	-/+	+	+/-	+/-	-
Tricholemmal Carcinoma	-	+	-	+	+	+	-	-
Actinic Keratosis	+/-	+	+/-	+/-	+	+	+	-

Skin: Spindle Cell Tissues and Tumors: Actin MS - D2-40

	Actin MS	Actin SM	ALDH1A1	BG8	CD10	CD31	CD34	CD99	Collagen IV	CK 8 & 18	CK Cocktail	D2-40
Angiosarcoma	-	-	-	-	-	+	+	-	+/-	-	-	+/-
Atypical Fibroxanthomas	+	+	+	-	+	-	-	+	-	-	-	-
DF-FH	-	-	-		+	-	-	-	-	-		-
DFSP	-	-	-	-	+/-	-	+	-	-	-		-
Glomus Tumor	+	+	-		-	-	+/-	-	+	-		-
Hemangioma	-	+	-	+	-	+	+	-	+	-	-	-
Kaposi Sarcoma	-	+	-	-	-	+	+	-	+/-	-		+
Kaposiform Hemangioendothelioma	-	-	-	-	-	+	+	-	-	+		-
Peripheral Nerve Sheath	+	-	+	-	-	-	-	+	+		-	+
Smooth Muscle	+	+	+		-	-	-	-/+	-	-	-	-
Solitary Fibrous Tumor	-	-	+	-	-	-	+	+/-	-	-		-



Skin: Spindle Cell Tissues and Tumors: Actin MS - D2-40 (continued)

	Actin MS	Actin SM	ALDH1A1	BG8	CD10	CD31	CD34	CD99	Collagen IV	CK 8 & 18	CK Cocktail	D2-40
Spindle Cell Melanoma	-	-	-	-	-	-	-	-	-	-	-	+
Spindle Squamous Cell Carcinoma	-	-	-	-	-	-	-	-	-	+	+	+
Squamous Cell Carcinoma	-	-	-		-	-	-	-	-		+	+

Skin: Spindle Cell Tissues and Tumors: Factor VIII - STAT6

	Factor VIII	Factor XIIIa	FLI-1	HHV-8	NGFR	S-100	STAT6
Angiosarcoma	+		+	-	-	-	-
Atypical Fibroxanthomas	-	+/-	-	-	-	-	
DF-FH	-	+	-	-	-	-	-
DFSP	-	-	-	-	+	-	-
Glomus Tumor	-	-	-	-	-	-	-
Hemangioma	+		+	-	-	-	-
Kaposi Sarcoma	+	+/-	+	+	-	-	-
Kaposiform Hemangioendothelioma	-	-	+	-	-	-	-
Peripheral Nerve Sheath	-	-	-	-	+	+/-	-
Smooth Muscle	-	-	-	-	-	-	-
Solitary Fibrous Tumor	-	-	-/+	-	-	-	+
Spindle Cell Melanoma	-	-	+	-	+	+	-
Spindle Squamous Cell Carcinoma	-		-	-	-	-	-
Squamous Cell Carcinoma	-	-	-	-	-	-	-

 Gastrointestinal (GI) pathology

Ampullary Carcinomas

	CDX-2	CK 17	MUC1	MUC2
Intestinal Subtype	+	-	-	+
Ductal	-	+	+	-

GIST Mutation vs. Wild Type

	CD34	CD117	DOG1
GIST, Kit Mutation	+	+	+
GIST, PDGFRA Mutation	-	-	+
GIST, Wild Type	+/-	+	+

Liver: Primary and Metastatic Epithelial Neoplasms

	Arginase-1	CK 7	CK 19	GATA3	Glutamine Synthetase	Glypican-3	Hep Par-1	S100P
Well Differentiated HCC	+	-/+	-/+	-	+	-	+	-
Moderately Differentiated HCC	+	-/+	-/+	-	+	-/+	+	-
Poorly Differentiated HCC	+	-/+	-/+	-	+	+	+	-
Hepatic Adenoma	+	+/-	-/+	-	-	-	+	-
Hepatic Dysplastic Nodule	+	+/-	-/+	-	-	-	+	-
Intrahepatic Cholangiocarcinoma	-	+	+	-	-	-	-	+
Pancreatic Ductal Carcinoma	-	-/+	-/+	-	-	-	-	+

Pancreatic Epithelial Tissues and Tumors

	β-Catenin	CA19-9	CD10	CD56	CDX-2	Chromogranin A	CK 7	CK 19	E-cadherin	Maspin	MUC4	pVHL	S100P	SMAD4	Synaptophysin
Ductal Carcinoma	+/-	+	+/-	-	-	-	+	-	+/-	+	+	-	+	-	-
Pancreatic Adenocarcinoma	-	+	+/-	-	-	-		+	-		+				-
Pancreatic Endocrine Tumor					-	+	-			-		-	-	-	+
Acinar Cell Carcinoma	+	-/+	+/-	-	-	-	-	+	+	-		-	-	-	-
Pancreatoblastoma	+	-	-	+		+		-	-		-	-			-
Neuroendocrine Tumor	+	+/-	-	+		+		+/-	-		-	-			+
Solid Pseudopapillary Tumor	+	-	+	+		-		-	+	(nuclear)					+
Islet Cells	+	-	-	+		+		-	-			-			+
Pancreatic Ducts	-	-	-	-	-	-	+	-	-	-		+	-	+	-

 Genitourinary (GU) pathology

Bladder Tissue

	Actin SM	Actin MS	Calponin	Smoothelin
Muscularis Mucosa	+	+	+	-
Muscularis Propria	+	+	+	+

Bladder Urothelium: Dysplasia vs. Reactive Changes

	CD44	CK 20	CK 5 & 6	Ki-67	MCM3	p53
Carcinoma <i>in situ</i>	-	+	-	+	+	+
Reactive Atypia	+	-	+	+	+	-
Normal Urothelium	+	+	-/+	-/+	-/+	-



Cervical Squamous Cell Neoplasms

	HSP27	p16	Stathmin
CIN I	+/-	+/-	-/+
CIN II	+/-	+/-	+/-
CIN III	+	+	+
Squamous Cell Carcinoma	+	+	+

Germ Cell Tumors

	AFP	CD30	CD117	CK Cocktail	D2-40	EMA	Glypican-3	hCG	hPL	Inhibin	Oct-4	PLAP	SALL4	SOX-2	Synaptophysin	Vimentin
Seminoma/Dysgerminoma	-	-	+	-	+	-	-	-	-	-	+	+	+	-	-	+
Embryonal Carcinoma	-	+	-	+	-	-	-	-	-	-	+	+	+	+	-	-
Choriocarcinoma	-	-	-	+	-	+	+	+	+	-	-	+	-	-	-	-/+
Yolk Sac Tumor	+	-	-/+	+	-	-	+	-	-	-	-	-/+	+	-	-	-
Spermatocytic Seminoma		-	-	-	-						-	-	+	-		-
Granulosa Cell Tumor	-	-	-	-	+/-	-	-	-	-	+	-	-	-		-	+
Hypercalcaemic Small Cell Carcinoma	-	-	-	+	+	+	-	-	-	-	-	-			-	-
Mature Teratoma	+/-	-	-	+	-	+	-	-	-/+		-	+/-	-	+/-	-	+
Immature Teratoma	-	-	+/-	+	-	+	-	+/-	-/+		-	-	+/-	+	-	+
Carcinoid	-	-	-	+	-	-	-	-	-	-	-	-	-	-	+	+

Gonads: Germ Cell Tumors and Small Cell Carcinoma

	AFP	CD30	CD117	CK Cocktail	D2-40	EMA	Glypican-3	hCG	hPL	Inhibin	Oct-4	PLAP	Vimentin
Seminoma	-	-	+	-	+	-	-	-	-	-	+	+	+
Embryonal Carcinoma	-	+	-	+	-	-	-	-	-	-	+	+	-
Choriocarcinoma	-	-	-	+	-	+	+	+	+	-	-	+	-/+
Yolk Sac Tumor	+	-	-/+	+	-	-	+	-	-	-	-	-/+	-
Somatic Carcinoma	-	-	-	+	-/+	+	-	-	-	-	-	-	-
Granulosa Cell Tumor	-	-	-	-	+/-	-	-	-	-	+	-	-	+

Kidney: Epithelial Neoplasms

	CD10	CD117	CK 7	CK, HMW	GATA3	Ksp-cadherin	RCC	S100P	TFE3
Xp11 Tr RCC	+		-/+		-	+	+	-	+
Clear Cell RCC	+	-	-/+	-	-	-/+	+	-	-
Papillary RCC	+	-	+	+/-	-	-/+	+	-	-
Chromophobe RCC	+/-	+	+	-	-	+	+	-	-
Renal Oncocytoma	+	+	-/+	-/+	-	+	-	-	-
Urothelial Carcinoma	+	+/-	+	+/-	+	-	-	+	-

Kidney Neoplasms

	CD10	CD117	CITED1	Claudin 7	CK 7	Ep-CAM	Ksp-cadherin	Parvalbumin	PAX-2	RCC	S100A1	Vimentin
Wilms Tumor	-	-	+		-/+					-		+

Kidney Neoplasms

	CD10	CD117	CITED1	Claudin 7	CK 7	Ep-CAM	Ksp-cadherin	Parvalbumin	PAX-2	RCC	S100A1	Vimentin
Clear Cell RCC	+	-	-	-	-/+	-	-	-	+	+	+	+
Papillary RCC	-/+	+	-		+		-/+	-		+	+	+
Renal Oncocytoma	+	+	-	-	-/+	-	+/-	+	+	-	+	-
Chromophobe RCC	+/-	+	-	+	+	+	+	+	+	-/+	-	-

Prostate Lesions

	CK 34βE12	CK 7	GATA3	PAX-2	p63	P504s	PSA	PSAP	Thrombomodulin	Uroplakin III
Prostate Carcinoma	-	-	-	-	-	+	+	+	-	-
Urothelial Carcinoma	+	+	+	-	+	-	-	-	+	+
Nephrogenic Adenoma	+/-	+	+	+	-	+	-	-	-	-

Prostate: Malignant vs. Benign

	AR	CK 34βE12	CK 5 & 6	CK 14	p63	P504s	PSA	PSAP
Prostate Carcinoma	+	-	-	-	-	+	+	+
Benign Prostate	+	+	+	+	+	-/+	+	+

Renal Cell Carcinoma vs. Hemangioblastoma

	Calretinin	CD10	CK Cocktail	D2-40	Inhibin	PAX-2
Metastatic RCC	-	+	+	-	-	+
Hemangioblastoma	+	-	-	+	+	-

Squamous Cell Carcinoma vs. Urothelial Carcinoma

	COX-2	CK 34βE12	CK 5	CK 14	CK 7	CK 20	Desmoglein 3	GATA3	Uroplakin III
Squamous Carcinoma	-	+	+	+	-	-	+	-	-
Urothelial Carcinoma	+	+	-/+	-	+	+	-	+	+

Squamous Cell Carcinoma vs. Urothelial Carcinoma vs. Adenocarcinoma

	CD10	CEA	CK 5 & 6	CK 7	CK 8 & 18	CK 20	Desmoglein 3	p63	TTF-1	Uroplakin III
Squamous Cell Carcinoma	-	-	+	-	+	-	+	+	-	-
Urothelial Carcinoma	+	-	+	+	+	+	-	+	-	+
Adenocarcinoma	-/+ ^a	+	-	+	+	-/+ ^b	-	-	+/- ^c	-

^a CD10 is detected in colorectal, hepatocellular, and renal cell carcinomas.
^b CK20 is detected in colon, stomach, pancreas, and biliary tract lesions but not in lung lesions.
^c TTF-1 is present in most lung lesions.



Head & Neck pathology

Differential Diagnosis of Thyroid and Parathyroid Tumors

	Calcitonin	Chromogranin A	Galectin-3	PTH	PAX-8	S-100	Synaptophysin	TTF-1
Parathyroid Tumors	-	+	-	+	+	-	+	-
Follicular Thyroid Tumors	-	-	+	-	+	+/-	-	+
Medullary Thyroid Cacinoma	+	+	-	-	+	-	+	+

Hematopathology

B-cell Lymphomas

	Annexin A1	BCL2	BCL6	BOB.1	CD5	CD10	CD11c	CD20	CD23	CD25	CD43	CD45	CD79a	Cyclin D1
Burkitt Lymphoma	-	-	+	+	-	+		+	-			+	+	-
SLL/CLL	-	+	-	-/+	+	-	-/+	+	+		+	+	+	-
DLBCL	-	+	+/-	+	-/+	-/+		+	-		-	+	+	-
Follicular	-	+	+	+	-	+		+	-	-		+	+	-
Hairy Cell Leukemia	+	+	-		-	-	+	+	-	+	-	+	+	+(weak)/-
Lymphoplasmacytic Lymphoma	-	+	-	+	-	-	-	+	-	-		+	+	-
MALT Lymphoma		+	-/+					+	-				+	-
Mantle Cell	-	+	-	-/+	+	-	-	+	-	+	+	+	+	+
Marginal Zone	-	+	-		-	-	+	+	-	-	+	+	+	-
Marginal Zone BCL	-	+	-	-/+	-	-		+	-				+	-
Splenic Marginal Zone	-	+	-		-	-			-				+	-

B-cell Lymphomas (continued)

	FoxP1	IgD	Kappa	Lambda	MUM1	Oct-2	p27	PAX-5	PD-1	PU.1	T-bet	TCL1	TRAcP	ZAP-70
Burkitt Lymphoma	+	-	+/-	-/+	-	-	-	+	-		-	+	-	-
SLL/CLL	-	+	+/-	-/+	+	+	+	+	-	+	+/-	+	-	+/-
DLBCL	+	-	+/-	-/+	+/-	+	-	+	-	+	-	+	-	-
Follicular	-	+	+/-	-/+	-	+	+	+	+	+	-	+	-	-
Hairy Cell Leukemia		-	+/-	-/+		+(weak)/-	-	+	-		+	+	+	-
Lymphoplasmacytic Lymphoma	-	-	+/-	-/+	+	-	+		-		+	+	-	-
MALT Lymphoma	+				-							+		
Mantle Cell	-	+	+/-	-/+	-	+	+	+	-	+	-	+	-	-
Marginal Zone		+	+/-	-/+	+	+		+	-	+		-	+/-	-
Marginal Zone BCL		-/+			+	+	+	+		+	+	-	+/-	
Splenic Marginal Zone	-				+/-	+		-				-		

c-Myc in Diffuse Large B-cell Lymphoma (DLBCL)

	BCL2	CD10	CD38	CD44	TCL1
DLBCL with c-Myc Rearrangement	-/+	+	+	-	+
DLBCL without c-Myc Rearrangement	+	+/-	-	+	-/+

CD5 in B-cell Neoplasms

	CD5	CD10	CD20	CD23	Cyclin D1	SOX-11
Mantle Cell Lymphoma	+	-	+	-	+	+
Follicular Lymphoma	-	+	+	-	-	-
SLL/CLL	+	-	+	+	-	-
Marginal Zone Lymphoma	-	-	+	-	-	-
Lymphoblastic Lymphoma	-	+/-	+	-	-	-
Burkitt Lymphoma	-	-	+	-	-	-
DLBCL, CD5+ Variant	+	+	+	-	-	-
Mantle Cell Lymphoma, Blastoid Variant	+	-	+	-	+	+

Cytotoxic Molecules in Mature T- and NK-cell Neoplasms

	Granzyme B	Perforin	TIA-1
NK/T Cell Lymphoma	+	+	+
Hepatosplenic T-cell Lymphoma	-	-	+
Cutaneous T-cell Lymphoma	+	+	+
EBV+ Systemic T-lymphoproliferative Disorders	+	+	+
T-cell Large Granular Lymphocytic Leukemia	+	+	+
Adult T-cell Leukemia/Lymphoma	-	-	-
Angioimmunoblastic Lymphoma	-	-	-
Anaplastic Large Cell Lymphoma	+	+	+

Distinction between Hairy Cell Leukemia and Splenic Marginal Zone Lymphoma

	Annexin A1	CD10	CD11c	CD25	CD103	CD123	Cyclin D1	DBA44	T-bet	TRAcP
Hairy Cell Leukemia	+	-*	+	+	+	+	+(weak)/-	+/-	+	+/-
Hairy Cell Leukemia Variant	-	-	+	-	+/-	-	-	+/-	-	+/-
Splenic Marginal Zone Lymphoma	-	-	-/+	-	-	-	-	+/-	-	+/-

* 20% of the lesions were reported to be positive for CD10.



Erythroid

	CD71	Glycophorin A	Hemoglobin A	Spectrin
Erythroid Hyperplasia	+	+	+	+
Erythroid Hypoplasia	+	+	+	+
Acute Erythroid Leukemia	+	+	+	+
Extramedullary Hematopoiesis	+	+	+	+
Mature Erythrocytes	-	+	+	+

Hematopoietic Neoplasms and Anaplastic Large Cell Lymphoma

	CD61	CD71	GATA1	Glycophorin A	MPO
Megakaryocytes	+	-	+	-	-
Acute Megakaryoblastic Leukemia	+	-	+	-	-
Myeloproliferative Neoplasm	+	+	+	+	+
Acute Myeloid Leukemia	-	+	+/-	-	+
Anaplastic Large Cell Lymphoma		+	-	-	-
Erythroid Precursors	-	+	+	+	-

Histiocytic Lesions

	CD3	CD4	CD20	CD45	CD68	CD163	Factor XIIIa	Lysozyme	MPO
Histiocytic Lesions	-	+	-	+	+	+	+	+	-

Histiocytic and Dendritic Cell Lesions

	CD1a	CD21	CD23	CD35	CD68	CD163	Langerin	Lysozyme	S-100
Langerhans Cell Histiocytosis	+	-	-	-	+/-	-	+	+/-	+
Rosai-Dorfman Disease	-	-	-	-	+	+	-	+	+
Follicular Dendritic Cell Sarcoma	-	+	+	+	-	-	-	-	-
Interdigitating Dendritic Cell Sarcoma	-	-	-	-	+/-	+	-	+	+
Histiocytic Sarcoma	-	-	-	-	+	+	-	+	+/-
Juvenile Disseminated Xanthogranuloma	-	-	-	-	+	+	-	+	+/-

Histiocytic and Dendritic Cell Neoplasms

	CD1a	CD14	CD21	CD35	CD68	CD163	Langerin	Lysozyme	PD-1	S-100
Reactive Histiocytosis	-	+	-	-	+	-	-	+	-	-
Langerhans Cell Histiocytosis	+	+	-	-	+/-	-	+	+/-	-	+
Sinus Histiocytosis with Massive Lymphadenopathy	-	+	-	-	+	+	-	+	-	+
Follicular Dendritic Cell Sarcoma	-	-	+	+	-	-	-	-	-	-
Sinusoidal Histiocytes	-	+	-	-	-	-	-			
Tingible Body Macrophages	-	-			+	-	-			
Plasmacytoid Monocytes	-	-			-	-	-			
Interdigitating Dendritic Cell	+	+/-			-	-	-			

Hodgkin Lymphoma: Classical (CHL) vs. Nodular Lymphocyte-Predominant (NLPHL)

	BCL2	BCL6	CD15	CD30	Cyclin D1	Granzyme B	IMP3	MUM1	PAX-5	SOX-11
CHL	+	-/+	+	+	-	-	+	+	+	-
NLPHL	+	+	-	-	-	-	+	-/+	+	-

Hodgkin vs. Non-Hodgkin Lymphomas

	ALK	BCL6	BOB.1	CD15	CD30	CD45	CD79a	EMA	Fascin	Granzyme B	MUM1	Oct-2	PU.1
Anaplastic Large Cell Lymphoma	+	+/-		-	+	+	-	+	-	+	-	-	-
Angioimmunoblastic T-cell Lymphoma	-	+		-	-	+	-	-	-	-	-	-	-
Hodgkin Lymphoma, Classic	-	-	-	+	+	-	-	-	+	-	+	-	-
Hodgkin Lymphoma, Nodular Lymphocyte Predominant	-	+	+	-	-	+	+	+	-	-	-/+	+	+
T-cell Rich B-cell Lymphoma	-	+	+	-	-	+	+/-	-/+	-	-	+	+	-
T-cell Rich LBCL	-	+	+	-	-	+	+	-	-	-	+	+	-

Immunoglobulin, Heavy and Light Chain

	IgA	IgD	IgG	IgM	Kappa	Lambda
Cutaneous Lymphoma	-	-	-	-	+/-	-/+
Myeloma	+	-/+	+	-/+	+/-	-/+
DLBCL	-	-	+	+	+/-	-/+
Marginal Zone Lymphoma	-	-/+	-	+	+/-	-/+
SLL/CLL	-	+	-	+	+/-	-/+



Leukemia

	CD13	CD14	CD16	CD33	CD34	CD38	CD71	CD117	CD163	MPO
Acute Myeloid Leukemia with Minimal Differentiation	+	+	-	+	+	+	-	+	-	-
Acute Myeloid Leukemia without Maturation	+	-	-	+	+	-	-	+	-	+
Acute Myeloid Leukemia with Maturation	+	-	-	+	+	-	-	+	-	+
Acute Myelomonocytic Leukemia	+	+	+	+	+/-	-	-	+	+	+
Acute Monoblastic and Monocytic Leukemia	+	+	+	+	-/+	-	-	+/-	+	+
Acute Erythroid Leukemia	-	-	-	-	-/+	-	+	+/-	-	-
Acute Megakaryoblastic Leukemia	+/-	-	-	+/-	-	-	-	-	-	-
Acute Basophilic Leukemia	+	-	-	+	+/-	-	-	-	-	-
Acute Panmyelosis with Myelofibrosis	+	-	-	+	+	-	-	+	-	-

Lymphoblastic Lymphomas, B-cell Type (B-LBL) vs. T-cell Type (T-LBL)

	CD1a	CD3	CD5	CD7	CD10	CD19	CD20	CD74	CD117	PAX-5	TdT
B-LBL	-	-	-	-	+/-	+	+/-	+	-	+	+
T-LBL	+/-	+	+/-	+	+	-	-	-	-	-	+

Lymphomas and Myeloid Sarcoma

	BCL2	BCL6	c-Myc	CD3	CD7	CD10	CD20	CD43	CD79a	PAX-5	TdT
Burkitt Lymphoma	-	+	+	-	-	+	+	-	+	+	-
DLBCL	+/-	+	+/-	-	-	+/-	+	-	+	+	-
B-cell Lymphoma, Unclassifiable, Intermediate between DLBCL and Burkitt Lymphoma	+/-	+	+/-	-	-	+/-	+	-	+	+	-
MCL, Blastoid Variant	-	-	-	-	-	-	+	-	+	+	-
T-LBL	-	+/-	-	+	+	+/-	-	+/-	-/+	-	+
B-LBL	-	+/-	-	-	-	+/-	-/+	+/-	+	-	+
Myeloid Sarcoma	-	-	-	-	-	-	-	+	-	-	-/+

Mastocytosis

	CD2	CD25	CD117	CD163	Tryptase
Mastocytosis	+	+	+	-	+
Mast Cell Leukemia	+	+	+	-	+
Reactive Mast Cells	-	-	+	+	+

Mature B-cell and T-cell Neoplasms

	CD3	CD20	CD43	CD45R	CD45RO
Mature B-cell Neoplasms	-	+	-	+	-
Mature T-cell Neoplasms	+	-	+	-	+

Mature B-cell Neoplasms

	Annexin A1	BCL2	CD5	CD10	CD20	CD23	Cyclin D1	HGAL	LMO2
Follicular Lymphoma	-	+/-	-	+/-	+	-	-	+	+
Diffuse Large B-cell Lymphoma	-	+	-/+	+/-	+	-	-	+	+
Small Lymphocytic Lymphoma	-	+	+	-	+	+	-	-	-
Mantle Cell Lymphoma	-	+	+	-	+	-	+	-	-
Marginal Zone Lymphoma	-	+	-	-	+	-	-	-	-
Hairy Cell Leukemia	+	+	-	-	+	-	-		

Mature B-cell Neoplasms with Reduced CD20 Expression

	CD20	CD30	CD38	CD45	CD79a	CD138	EMA	HHV-8	MUM1	PAX-5
Plasmablastic Lymphoma	-	+	+	-	+	+	+	-	+	-
Primary Effusion Lymphoma	-	+/-	+/-	+	-	+	+/-	+	+	-
Large B-cell Lymphoma arising in HHV8-associated Multicentric Castleman Disease	-/+		-/+	+	-	-		+		
Extranodal Marginal Zone Lymphoma with Plasmacytoid Differentiation	-		+	+	+	+			+	-

NK Cell Leukemia/Lymphoma

	CD2	CD3	CD16	CD56	CD57	Granzyme B	Perforin	TIA-1
Aggressive NK-cell Leukemia	+	+	+	+	-	+	+	+
T-Cell Large Granular Lymphocytic Leukemia	+	+	+	-	+	+	+	+
Extranodal NK/T-Cell Lymphoma, Nasal Type	+	+	-	+	-	+	+	+

Plasma Cell Neoplasm and Lymphoproliferative Neoplasms

	CD19	CD20	CD43	CD56	CD79a	CD138	Cyclin D1	EMA	MUM1
Plasma Cell Neoplasm	-	-/+	-	+	+	+	-/+	+	+
ALK+ Large B-cell Lymphoma	-	-	-/+	-	-	+	-	+	+
Plasmablastic Lymphoma	-	-	-	-	+	+	-	+	+
HHV8-associated Large B-cell Lymphoma	+/-	+/-	-	-	-	-	-	-	-
Primary Effusion Lymphoma	-	-	-	-	-	+	-	+	+
B-LBL	+	+	-	-	+	+	-	-	+/-
Splenic Marginal Zone Lymphoma	+	+	-	-	+	-/+	-	-	+/-



Small and Medium/Large B-Cell Neoplasms

	Annexin A1	BCL6	CD5	CD10	CD23	CD103	Cyclin D1	IgD	LEF1	T-bet	ZAP-70
Small Cell											
SLC/CLL	-	-	+	-	+	-	-	+	+	+/-	+/-
Follicular Lymphoma (Grades 1/2)	-	+	-	+	-	-	-	-	-	-	-
Mantle Cell Lymphoma	-	-	+	-	-	-	+	+	-	-	-
Hairy Cell Leukemia	+	-	-	-	-	+	+	-		+	-
MALT Lymphoma		-	-	-	-		-	-	-	+	
Marginal Zone Lymphoma, Nodal	-	-	-	-	-	-	-	-/+	-	+	-
Marginal Zone Lymphoma, Splenic	-	-	-	-	-	-	-	+	-	+	
Lymphoplasmacytic Lymphoma	-	-	-	-	-	-	-	-	-		-
Medium/Large Cell											
Burkitt Lymphoma	-	+	-	+	-		-	-	-	-	-
Follicular Lymphoma (Grade 3)	-	+	-	+	-	-	-	-	-/+	-	-
Diffuse Large B-cell Lymphoma	-	+/-	-/+	-/+	-	-	-	-	-/+	-	-

Splenic Hematopoietic Proliferations in Neoplastic and Benign Disorders

	CD34	CD68	CD117	Hemoglobin A	MPO
Chronic Myelogenous Leukemia	-/+	+	+/-	-	+
Chronic Idiopathic Myelofibrosis	+/-		-/+	-	+
Myelodysplastic Syndrome	+		-/+	-	+/-
Myeloproliferative Disorders	-	+	-	-	+
Mastocytosis	-		+	-	+
Erythroid Disorders	-	-/+	-	+	+/-
Splenic Lymphoma	-		-	-	-/+
Acute Myeloid Leukemia	+	+	+	-	+
Polycythemia Vera	+		+	+	

T-cell Lymphomas

	CD2	CD3	CD4	CD5	CD7	CD8	CD25	CD45	CD45RO	CD56	Granzyme B	PD-1	Perforin
Angioimmunoblastic	+	+	+	+	+	-	+	+	+		-	+	
Lymphoblastic	+/-	+	+/-	+	+	+/-	+	+	+		+/-	-	
Subcutaneous Panniculitis-Like	+	+	-	+	+	+/-	-	+	+	-	+	-	+
NK/T-cell Lymphoma	+	+	-	-	-/+	-	+	-/+	+	+	+	-	+
Cutaneous	+	+	+	-	+	-	-	+	-		+	-/+	+
Peripheral, NOS	+	+	+/-	+/-	+/-	-/+	+	+	+	-		-	
Mycosis Fungoides	+	+	+	+	-	-	+	+	+	-	+/-	-	-

Neuropathology

Brain: CNS Tumors

	ALDH1A1	CK	EMA	GFAP	INI-1	NGFR	Neurofilament	Olig2	PR	S-100	S100β	STAT6	Synaptophysin	Vimentin
Astrocytoma	+	-*	-	+	+	+	-	+/-	-	+	+	-	-	+
Glioblastoma	+	-*	-	+/-	+	-	-	+	-	+	+	-	-	+
Oligodendroglioma		-	-	-	+	-	-	+	-	+	+	-	-	+
Ependymoma		-*	-	+	+	+	-	-	-	+		-	-	-/+
Choroid Plexus Carcinoma		+	-	-/+	+	-	-		-	+			+	+/-
Central Neurocytoma		-	-	-	+	+	-		-	-			+	-
Neuroblastoma		-	-	+/-	+	+	+		-	+/-			+	+
Pineocytoma		-	-	-	+	-	-		-	-			+	
Meningioma	-	-	+	-	+	-	-	+/-	+	-/+		-	-	+
Schwannoma		-	-	+	+	+	-		-	+	+	-	-	+
Rhabdoid Tumors		+	+	-	-		+/-			+/-			+/-	+
Solitary Fibrous Tumors	+	-	-	-		+			-	-		+		+
Metastatic Carcinoma	-/+	+	+	-	+	-	-		-/+	-		-	-	-

* Frequently reactive with AE1/AE3, but mostly (80% - 95%) negative for other cytokeratin antibodies including CAM 5.2.

Meningeal Solitary Fibrous Tumor (SFT)

	ALDH1A1	CD34	Claudin 1	EMA	FLI-1	GFAP	NGFR	PR	S-100	SOX-10	STAT6
SFT	+	+	-	-	+	-	+	-	-		+
Meningioma	-	-	+	+/-		-	-	+	-/+	-	-
Schwannoma	-	-	-	-/+	-	+/-	+	-	+	+	-

Retroperitoneal Neoplasms

	CD99	Chromogranin A	GFAP	MBP	Neurofilament	NSE	PGP 9.5	S-100	Synaptophysin
Neuroblastoma	-	+	+/-	-	+	+	+	-	+
Ganglioneuroblastoma	-	+	+	-/+	+	+	+	+	+
Ganglioneuroma	-	+	+	+	+	+	+	+	+



pediatric pathology

Histiocytic Proliferation

	CD1a	CD68	CD163	Factor XIIIa	HAM-56	Lysozyme	S-100	Vimentin
Juvenile Xanthogranuloma	-	+	+	+	+	+	-	+
Langerhans Cell Histiocytosis	+	+	+	-	+	+	+	+
Dermatofibroma	-	+	-	+	-	-	-	+

Retroperitoneal Lesions

	CD99	Chromogranin A	GFAP	Neurofilament	NSE	PGP 9.5	S-100	Synaptophysin
Neuroblastoma	-	+	-/+	+	+	+	-	+
Ganglioneuroblastoma	-	+	+	+	+	+	+	+
Ganglioneuroma	-	+	+	+	+	+	+	+
Leiomyosarcoma	-	-	-	-	-/+	-/+	-	-
Rhabdomyosarcoma	-	-	-	-	-	+	-	-
Synovial Sarcoma	+/-	-	-	-	-	-	-/+	-

pulmonary pathology

Epithelioid Mesothelioma vs. Carcinoma

	Calretinin	CAV-1	CEA	CK 5 & 6	Ep-CAM	Napsin A	Thrombomodulin	TTF-1	WT1
Epithelioid Mesothelioma	+	+	-	-	-	-	+	-	+
Lung Squamous Cell Carcinoma	-	+/-	-	+	+	+/-	-	-	-
Lung Adenocarcinoma	-	-	+	+	+	+	-	+	-
Breast Invasive Ductal Carcinoma	-	-	-	+	-/+	+	-	-	-
Renal Cell Carcinoma	-	-	+	-	-	-/+	-	-	-
Ovarian Serous Carcinoma	-	-	-	+	+/-	+	-	-	+
Hepatocellular Carcinoma	-	-	-	+	-	-/+	-	-	-

Lung Adenocarcinoma vs. Mesothelioma

	Ber-EP4	BG8	Caldesmon	Calretinin	CEA	CK 5 & 6	D2-40	E-cadherin	HBME-1	TAG-72	TTF-1
Adenocarcinoma	+	+	-	-	+	-	-	+	-	+	+
Mesothelioma	-	-	+	+	-	+	+	-	+	-	-

Lung Squamous Cell Carcinoma vs. Adenocarcinoma

	CK 5 & 6	Desmoglein 3	Napsin A	p63	SOX-2	TTF-1
Adenocarcinoma	-	-	+	-/+	-/+	+
Squamous Cell Carcinoma	+	+	-	+	+	-

Pleura: Adenocarcinoma vs. Mesothelioma

	Caldesmon	Calretinin	CEA	CK 5	CK 5 & 6	D2-40	Ep-CAM	E-cadherin	HBME-1	Napsin A	TAG-72	TTF-1	TBM*	WT1
Adenocarcinoma	-	-	+	-	-	-	+	+	-	+	+	+	-	-
Mesothelioma	+	+	-	+	+	+	-	-	+	-	-	-	+	+

* Thrombomodulin

Thoracic Solitary Fibrous Tumor (SFT) vs. Potential Mimics

	Calretinin	CD34	CD117	CK Cocktail	Napsin A	NGFR	STAT6	TTF-1	WT1
Pleural SFT	-	+	-	-	-	+	+	-	-
Thymoma	-	-	+/-	+	-	-	-	-	-
Mesothelioma	+	-	-	+	-	-	-	-	+
Spindle Cell Carcinomas	-	-	-	+	-/+	-	-	+/-	-

soft tissue pathology

Histiocytic and Dendritic Cell Lesions

	CD1a	CD21	CD23	CD35	CD68	CD163	Langerin	Lysozyme	S-100
Langerhans Cell Histiocytosis	+	-	-	-	+	+	+	+/-	+
Rosai-Dorfman Disease	-	-	-	-	+	+	-	+	+
Follicular Dendritic Cell Sarcoma	-	+	+	+	+/-	+/-	-	-	-
Interdigitating Dendritic Cell Sarcoma	-	-	-	-	+/-	+	-	+	+
Histiocytic Sarcoma	-	-	-	-	+	+	-	+	+/-
Juvenile Disseminated Xanthogranuloma	-	-	-	-	+	+	-	+	+/-



Kidney, Urothelial, and Soft Tissue Neoplasms

	Cathepsin K	CD34	CD117	GATA3	RCC	TFE3
XP11 Translocation RCC	+	-	-/+	-	+	+
Alveolar Soft Part Sarcoma	+	-	-	-	-	-
Rhabdomyosarcoma	+	-	-	-	-	-
Leiomyosarcoma	+	-	-	-	-	-
GIST	+	+	+	-	-	-
Melanoma	+	-	-/+	-	-	-
Renal Cell Carcinoma	-	-	+/-	-	+	-
Oncocytoma	-	-	+/-	-	-	-
Urothelial Carcinoma	-	-	-	+	-	-

Muscle Malignant Tumors

	Actin MS	Actin SM	Caldesmon	Calponin	Myogenin	Myoglobin	PGP 9.5	Vimentin
Leiomyosarcoma	+	+	+	+	-	-	-	+
Rhabdomyosarcoma	-/+	-/+	-	-	+	+	+	+

Neuroblastoma vs. Other Small Round Cell Tumors

	CD45	CD99	CK Cocktail	Desmin	Myogenin	Neurofilament	PHOX2B	S-100	Synaptophysin	WT1
Neuroblastoma	-	-	-	-	-	+	+	-	+	-
Differentiated Neuroblastoma/ Ganglioneuroblastoma	-	-	-	-	-	+	+	-	+	-
Small Cell Carcinoma	-	-	+	-	-	-	-	-	+	-
Wilms Tumor	-	-	+/-	+	+/-	-	-	-	-	+
Rhabdomyosarcoma	-	-	-	+	+	-	-	-	-	-
Desmoplastic Small Round Cell Tumor	-	+/-	+	+	-	-	-	-	-	+
Mesenchymal Chondrosarcoma	-	+	-	-/+	-	-	-	+/-	-	-
Poorly Differentiated Synovial Sarcoma	-	+	+	-	-	-	-	-	-	-
Ewing Sarcoma	-	+	-/+	-	-	-	-	-	-	-
Small Cell Melanoma	-	-/+	-	-	-	-	-	+	-	-
Lymphoma/Leukemia	+/-	- (LB+)	-	-	-	-	-	-	-	-

Small Blue Round Cell Tumors

	Actin MS	Actin SM	Caldesmon	Calponin	CD45	CD57	CD99	CK Cocktail	FLI-1	INI-1	Myogenin	Myoglobin	PGP 9.5	Vimentin	WT1
Lymphoblastic Lymphoma	-	-	-		+	-	+	-	+	+	-	-		+	-
Leiomyosarcoma	+	+	+	+	-	+/-	-	-/+	-		-	-	-	+	-
Rhabdomyosarcoma	+	-	-	-	-	-	-	-	-	+	+	+	+	+	-
Neuroblastoma	-	-	-		-	+	-	-	-	+	-	-	+	+	-
Embryonal Carcinoma	-	-			-	+	-	+	-	+	-	-	+	-	-
PNET/ES	-	-		+	-	+	+	-/+	+	+	-	-	+	+	-
DSRCT	-	-			-	+/-	-	+	+	+	-	-	-	+	+
Medulloblastoma	-	-			-	+	-	-	-	+	-			-	

Soft Tissue Neoplasms

	Actin MS	Actin SM	Calretinin	CD34	CD56	CK Cocktail	Desmin	HMB-45	S-100	TFE3
Alveolar Soft Part Sarcoma	+	+	-	-	-	-	-	-	-	+
Clear Cell Sarcoma	-	-	-	-	-	-	-	+	+	-
Leiomyosarcoma	+	+	-	-/+	+	-/+	+	-	-	-
PEComa	-	+	+	-	+	-	-	+	+	-

Soft Tissue Tumors: Actin MS - INI-1

	Actin MS	Actin SM	ALK	Caldesmon	Calponin	Calretinin	CD34	CD99	CK Cocktail	Desmin	DOG1	EMA	FLI-1	INI-1
Alveolar Soft Part Sarcoma	+	+	-			-	-	-	-	-		-		
Clear Cell Sarcoma	-	-	-			-	-	-	-	-				+
Desmoplastic Small Round Cell	-	-	-			-	-	-	+	+		+		+
Epithelioid Sarcoma	-/+	-	-			-	+	-	+	-		+		-
Leiomyosarcoma	+	+		+	+		-/+		-/+	+	-	-/+	-	
Mesenchymal Chondrosarcoma	-	-				+	-/+	+	-					
Myxoid Chondrosarcoma	-		-			+	-/+		-			-		-
PEComa	-	+	-			+	-	-	-					
PNET/ES	-	-	-			-	-	+	-/+				+	+
Rhabdomyosarcoma	-/+	-/+		-	-		-		-	+	-	-	-	+
Synovial Sarcoma	-	-	-	-	+/-	+/-	-	+	+	-	-	+	-	-
Fibrous Histiocytoma	-	+	-				-	-	-	-				
Inflammatory Myofibroblastic Tumor	+	+	+				-	-	-					
GIST		-		+/-	+/-					+/-	+			
Schwannoma		-		-	-					-	-			
Malignant Peripheral Nerve Sheath Tumor		-		-	-					-	-			



Soft Tissue Tumors: MyoD1 - Transgelin

	MyoD1	Myogenin	S-100	TFE3	TLE1	Transgelin
Alveolar Soft Part Sarcoma	-	-	-	+	-	
Clear Cell Sarcoma	-	-	+	-	-	
Desmoplastic Small Round Cell	-	-	-	-	-	
Epithelioid Sarcoma	-	-		-	-	
Leiomyosarcoma	-	-	-	-	-	+
Mesenchymal Chondrosarcoma	-		+/-	-	-	
Myxoid Chondrosarcoma	-			-	-	
PEComa	-		-	-	-	
PNET/ES	-	-	+	-	-	
Rhabdomyosarcoma	+	+	-	-	-	-
Synovial Sarcoma	-	-	-/+	-	+	-
Fibrous Histiocytoma	-		-	-	-+	
Inflammatory Myofibroblastic Tumor	-		-	-	-	
GIST	-	-	-		-	-
Schwannoma	-	-	+		-	-
Malignant Peripheral Nerve Sheath Tumor	-	-	+	(focal)	-/+	+

Solitary Fibrous Tumor vs. Other Soft Tissue Tumors

	Actin SM	CD34	CD117	CK Cocktail	Desmin	DOG1	MUC4	NGFR	S-100	STAT6
Solitary Fibrous Tumor	-	+	-	-	-	-	-	+	-	+
GIST	-	+	+	-	-	+	-		-	-
Dermatofibrosarcoma Protuberans	-	+	-	-	-	-	-	-	-	-
Leiomyosarcoma	+	-/+	-	-	+	-	-	-	-	-
Malignant Peripheral Nerve Sheath Tumor	-	-	-	-	-	-	-	+	+/-	-
Myoepithelial Tumors	-/+	-		+	-		-		+	-
Leiomyoma	+	-	-	-	+	-	-		-	-
Atypical Fibroxanthoma	+	-	-	-	-	-	-		-	-
Low-Grade Fibromyxoid Sarcoma	-/+	-	-	-	-	-	+		-	-
Synovial Sarcoma	-	-	-	+	-	-	-	-	-	-
Fibrosarcoma	-	-	-	-	-	-	-	-	-	-

Solitary Fibrous Tumor vs. Skin and Vascular Neoplasms

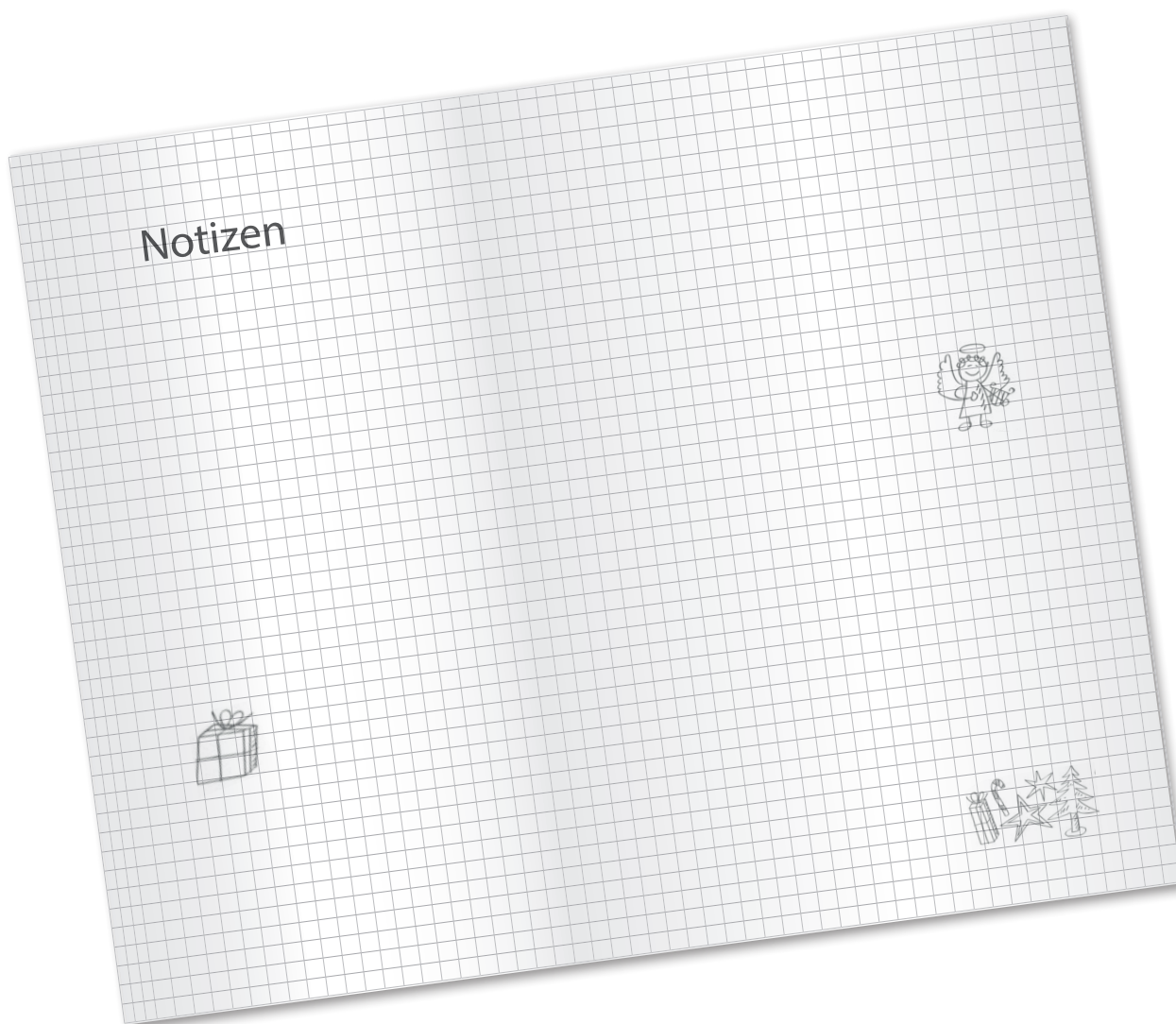
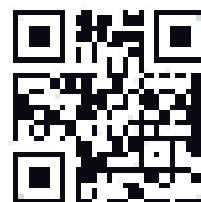
	ALDH1	CD31	CD34	CK 8 & 18	D2-40	ERG	Factor VIII	FLI-1	HHV-8	NGFR	STAT6
Solitary Fibrous Tumor	+	-	+	-	-		-	+	-	+	+
Dermatofibrosarcoma Protuberans	-	-	+	-			-	-	-	+	-
Melanoma	-	-	-	-	+	-	-	-	-	+	-
Hemangioma	-	+	+	-	-	+	+	+	-	-	-
Kaposi Sarcoma	-	+/-	+	-	+	+	+	+	+	-	-
Kaposiform Hemangioendothelioma	-	+	+	-/+	-	+	-	+	-	-	-
Epithelioid Hemangioendothelioma	-	+	+	-/+	+	+	+	+	-	-	-
Angiosarcoma	-	+	+	-	+/-	+	+	+	-	-	-

Vascular Tumors

	CD34	D2-40	ERG	Factor VIII	FLI-1	HHV-8
Hemangioma	+	-	+	+	+	-
Kaposi Sarcoma	+	+	+	+	+	+
Hemangioendothelioma	+	-	+	-	+	-
Angiosarcoma	+	+/-	+	+	+	-
Colorectal Adenocarcinoma	-	-	-	-	-/+	-
Invasive Ductal Carcinoma	-	-	-	-	-/+	-

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Vom Sehen
zum Erkennen.