

Diagnosis	Immunohistochemical & Molecular Markers							
	* = preferred							
Angiomyolipoma	HMB45	Caldesmon	Melan-A	SMA	S100			
Carcinoid tumors:								
Foregut	Synapto	Chromogr						
Hindgut	Synapto	CDX-2	Chromogr					
Pulmonary	Synapto	Chromogr	TTF1 (~30%)					
Dendritic cell sarcoma	CD21	CD23	CD35	lysozyme (muramidase)				
Germ cell tumors:								
Seminoma/Dysgerminoma	PLAP	CD117	OCT 3/4	D2-40	CD30	CKCKT	Glypican	
Embryonal carcinoma	CD30	OCT 3/4	Glypican					
Yolk sac tumor	Glypican	AFP	D2-40					
Choriocarcinoma	HCG	Glypican	hPL					
Teratoma	No special markers							
(common to all types)	FISH for i12p (retained in carcinomas arising out of teratomas; has treatment implications)							
Glomus tumor	SMA							
Granular cell tumor	S100	SOX10						
Infantile hemangioma	GLUT1							
Lymphangioma	D2-40	LYVE1	CD31	CD34	ERG			
Malignant melanoma (all types)	Melan-A (MART-1)	HMB45	S100	SOX10	CD117			
	SOX 10 is superior to S100 for desmoplastic melanoma							
Mesothelioma	CK5/6	Calretinin	WT1	D2-40	HBME	CK7	HMWCK	CEA TTF1 CD15 ER Napsin
Pancreas - neuroendocrine tumor	Synapto	Chromogr	PR					
Pancreas - solid pseudopap. tumor	b-catenin (nuclear)	E-cadherin (loss)						
Pheochromocytoma	Synapto	Chromogr	S100 (sustentacular cells)	Inhibin				
Renal oncocytoma	CKIT	PAX-2	EMA	CK7 (rare intense positive cells in negative background)	RCC	CD10		
Sex cord stromal tumors	Inhibin*	ER*	Calretinin*	CD99	Melan-A	WT1	Vimentin	

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