

Algorithm of IHC antibody panels

Part 2: Tissue type-specific biomarker panel – Soft tissue neoplasms and sarcomas



Differential diagnosis	Most commonly used biomarkers
Adipocytic Tumors	S100B
Liposarcoma	MDM2, CDK4, p16
Spindle cell Lipoma	CD34 , p53
Muscular Tumors	
Leiomyosarcoma/Leiomyoma	ASMA , Desmin , h-Caldesmon , Calponin
Rhabdomyosarcoma/rhabdomyoma	Desmin , Myogenin, MyoD1
Peripheral Nerve Sheath Tumors	S100B , SOX10
Malignant peripheral nerve sheath tumor (MPNST)	H3K27me3
Schwannoma/neurofibroma	CD34
Vascular Tumors	CD31 , CD34 , ERG
Angiosarcoma	FLI1
Perivascular Epithelioid Cell Tumor (PEComa)	Melanosome (HMB45), Melan A, Cathepsin K, ASMA
Myofibroblastic Tumors	ASMA , Desmin , S100B , h-Caldesmon

Those **bolded** are the most commonly used biomarkers.



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Differential diagnosis	Most commonly used biomarkers
Fibroblastic Tumors	
Solitary fibrous tumor (SFT)	STAT6, CD34 , BCL2
Dermatofibrosarcoma protuberans (DFSP)	CD34 , Factor XIIIa
Desmoid fibromatosis	β-Catenin
Others	
Synovial sarcoma	PanCK , EMA, TLE1, CD99
Undifferentiated pleomorphic sarcoma (UPS)	Vimentin, CD68, CD163, ASMA
Gastrointestinal stromal tumor (GIST)	CD117, DOG1, CD34 , SDHB
Epithelioid sarcoma	INI1, PanCK , EMA, CD34

Soft tissue biomarkers

Most commonly used biomarkers	More biomarkers available from Sakura Finetek USA
ASMA , Desmin , h-Caldesmon , Calponin , S100B , SOX10 , ERG , CD31 , CD34 , PanCK	β-Catenin, BCL2, CD68, CD99, CD117, CD163, DOG1, EMA, Factor XIIIa, Melanosome (HMB45), Melan A, Myogenin, p16, p53, STAT6, Vimentin

Those **bolded** are the most commonly used biomarkers.

