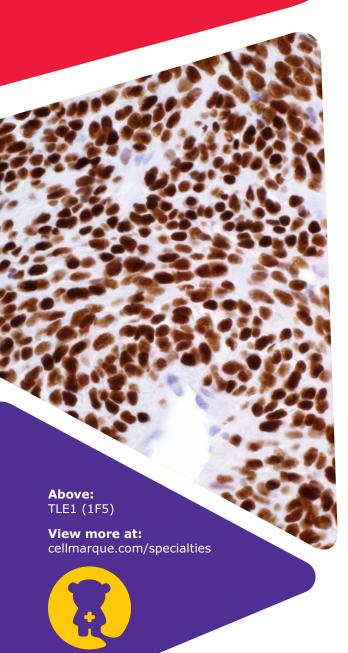
Sigma-Aldrich®

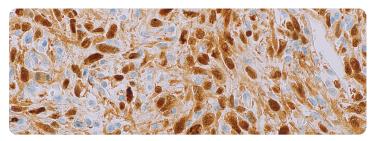
Lab & Production Materials





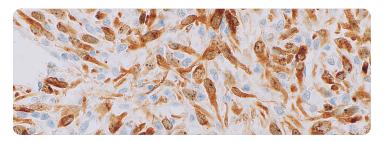


Cell Marque™ Tissue Diagnostics Soft Tissue Pathology



CDK4 (DCS-31)

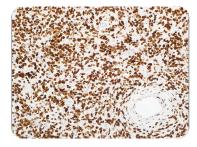
Well-differentiated liposarcoma is a malignant, non-metastasizing tumor that can present with similar histological characteristics as benign lipoma lesions and has a higher recurrence rate. The CDK4 protein is frequently overexpressed in well-differentiated liposarcoma due to gene amplification of the 12q13-15 chromosomal region that harbors the CDK4 gene, but amplification and subsequent overexpression is rarely observed in lipomas. Due to CDK4 protein expression differences between these lesions, anti-CDK4 antibody can be used in an immunohistochemistry panel as an aid in the differential diagnosis between well-differentiated liposarcoma and lipoma.



MDM2 (IF2)

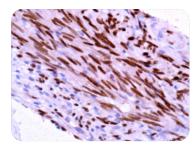
Mouse double minute protein 2 (MDM2) is a gene encoded on the 12q13-14 chromosomal sequence. It encodes for a 483 amino acid residue protein which binds to the amino-terminal transcription region of p53. MDM2 has been shown to negatively regulate the tumor-suppressor activity of p53 by three mechanisms: Blocking p53 transcription, binding to p53 causing it to be exported from the nucleus, and accelerating the destruction of p53. MDM2 up-regulation has been shown in liposarcoma while being absent in lipoma. Therefore, anti-MDM2 has been demonstrated to be a potentially useful tool in distinguishing well-differentiated liposarcoma (atypical lipomatous tumor) from lipoma, with the neoplastic cells positive in the former lesion and negative in lipoma.

Soft Tissue Pathology



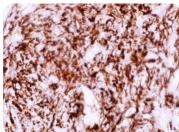
STAT6 (EP325)

STAT6, a member of the signal transducers and activators of transcription (STAT) family, has been found to form recurrent fusions with NAB2 on chromosome 12q13 in the majority of solitary fibrous tumors. Inactivated STAT6 can be found in the form of a dimer located in the cytoplasm. STAT6 and NAB2 fusion enables cytosolic STAT6 to migrate to the nucleus and thus allowing for detection in immunohistochemical assays. NAB2-STAT6 fusion transcriptions have been reported in the majority of solitary fibrous tumors but not in meningiomas, hemangioblastomas, schwannomas, and hemangiomas. This makes STAT6 a useful marker in distinguishing solitary fibrous tumors from other morphologically similar tumors.



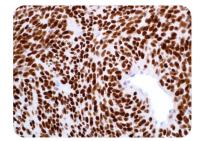
ERG (EP111)

ERG is an important novel marker for the identification of vascular neoplasms due to its strong and specific nuclear expression in endothelial cells. ERG is strongly expressed in Kaposi sarcoma, which is usually associated with HHV-8, as well as other vascular tumors such as hemangioendothelioma and angiosarcoma. ERG has shown to be a valuable addition to an endothelial panel that includes Factor VIII, CD31, CD34, and D2-40.



MUC4 (8G7)

MUC4 is a transmembranous glycoprotein. MUC4 overexpression has been reported in low-grade fibromyxoid sarcoma (LGFMS). Strong, diffuse cytoplasmic staining for MUC4 has been identified in cases of sclerosing epithelioid fibrosarcoma whereas all other epithelioid soft tissue tumors— including clear cell sarcoma, epithelioid sarcoma, epithelioid hemangiosarcoma, PEComa and melanoma—were negative.



TLE1 (1F5)

Mouse monoclonal TLE1 (1F5) is a highly sensitive and specific biomarker for the diagnosis of synovial sarcoma in the group of otherwise unclassifiable high-grade sarcomas. TLE1 is rare to absent in other soft tissue tumors including malignant peripheral nerve sheath tumors and pleomorphic sarcoma.

For ordering information, please contact your local sales representative or distributor. For full references and product details please see the product insert.

Intended Use: These products herein are intended for laboratory use in the detection of their respective proteins in formalin-fixed, paraffin-embedded tissue stained in qualitative immunohistochemistry (IHC) testing. These products are not a stand-alone diagnostic, and cannot be used for diagnosis, treatment, prevention, or mitigation of disease.



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