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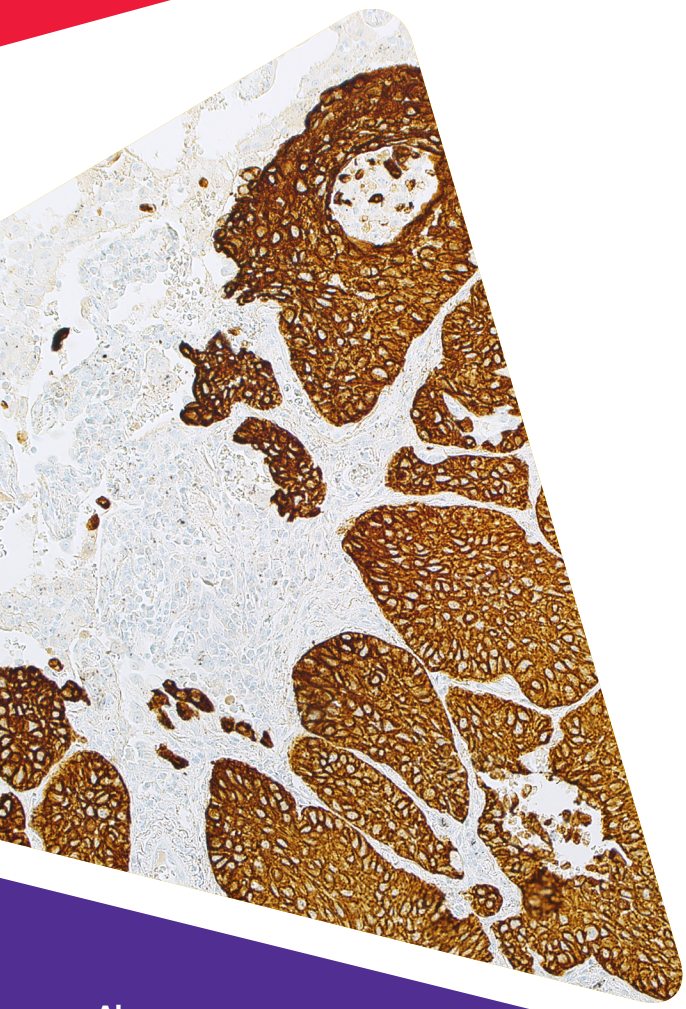

Above:
Cytokeratin 5 & 6 (EP24 & EP67)

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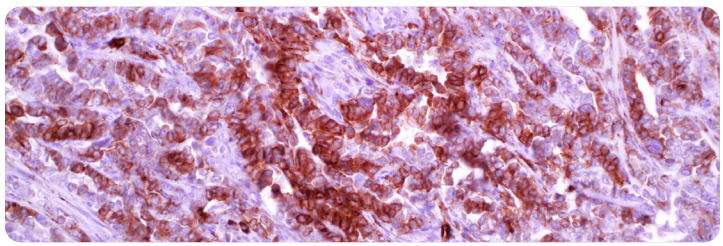
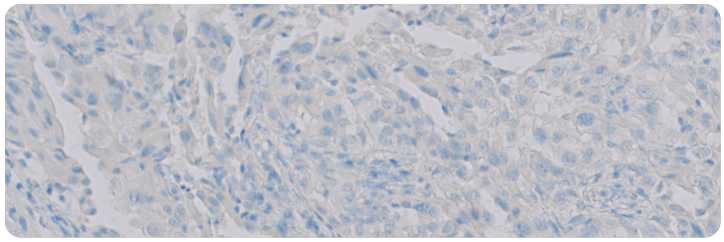
Cell Marque™ Tissue Diagnostics

Mesothelioma Markers



Caveolin-1 (2297)

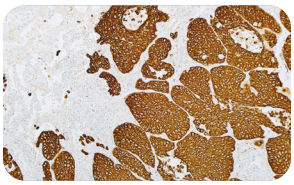
Caveolin-1 (CAV-1) is a cell membrane-associated structural component of flask-shaped plasma membrane invaginations termed caveolae. CAV-1 is expressed at different levels in different tissues, with the highest in adipocytes, endothelial cells, fibroblasts, alveolar type I pneumocytes, and mesothelial cells. Anti-Caveolin-1 immunoreactivity is seen in the vast majority of epithelioid mesotheliomas and Ewing sarcoma/PNET, whereas reactivity in lung adenocarcinomas is only occasionally seen and in a weak and focal pattern.



Claudin-4 (EP417)

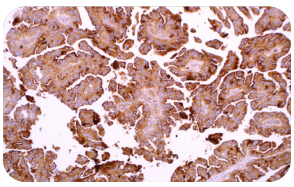
The claudin-family proteins are a group of tight-junction membranous proteins responsible for paracellular molecular flow between adjacent cells of the epithelium. In normal kidney, claudin-4 plays a key role in paracellular ion reabsorption. Claudin-4 is expressed in most epithelial cells yet is absent in mesothelial cells, making it of great use in characterizing epithelial malignancies. Immunohistochemical identification of this antigen may help identify poorly differentiated lung adenocarcinoma from lesions of mesothelial origin. Likewise, identification of claudin-4 expression by IHC may be useful in characterizing breast and endometrial lesions.

Mesothelioma Markers



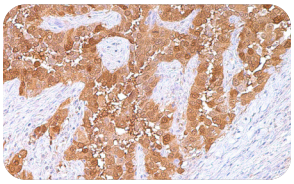
Cytokeratin 5 & 6 (EP24 & EP67)

Twenty identified cytokeratins make up a complex family of intermediate filaments. Cytokeratin 5 (58kDa) & cytokeratin 6 (56kDa) are type II high molecular weight keratins that are expressed in a broad range of normal tissues including breast, prostate, mesothelium, skin and esophagus. Anti-Cytokeratin 5 & 6 is a useful immunohistochemical marker in the identification of mesothelioma and lung squamous cell carcinoma.



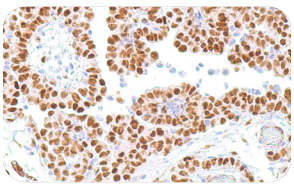
Mesothelin (EP140)

Mesothelin is a 40 kDa glycosyl-phosphatudylinositol-anchored glycoprotein cleaved from a 71kDa precursor protein encoded by the human mesothelin gene. Mesothelin is present on the surface of normal mesothelial cells. Although the function of mesothelin is unknown, it is overexpressed in a wide variety of cancers including mesothelioma, pancreatic ductal adenocarcinoma, and ovarian carcinoma. Mesothelin has proven to be a valuable marker for pancreatic ductal adenocarcinoma due to its strong reactivity in tumor tissue and absence in normal pancreas. Metastatic renal cell carcinoma can present clinical patterns that mimic primary mesothelioma, pancreatic ductal adenocarcinoma, and ovarian carcinoma. Mesothelin has demonstrated utility in the differential diagnosis between these primary tumors and corresponding metastatic renal cell carcinoma within the context of an antibody panel.



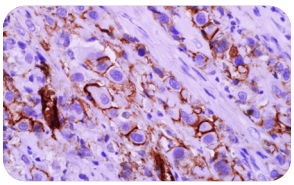
Calretinin (polyclonal)

Calretinin is a 29-kDa calcium-binding protein thought to play a role in the cell cycle. Anti-calretinin labels mesothelial and Leydig cells under normal and neoplastic conditions. Anti-calretinin has been shown to be useful in differentiating mesothelioma from adenocarcinomas of the lung and other sources.



WT1 (6F-H2)

Wilms' tumor 1 protein (WT1) is a zinc finger transcription factor, normally expressed in tissues of mesodermal origin. The Wilms' tumor gene encodes a protein that functions as a tumor suppressor gene. WT1 is detected in tumor cells of Wilms' Tumor (also known as nephroblastoma) and mesothelioma. Additionally, WT1 expression has been found in ovarian serous carcinomas and some breast carcinomas.



Podoplanin (D2-40)

Podoplanin is a transmembrane mucoprotein (38 kD) recognized by the D2-40 monoclonal antibody. Podoplanin is selectively expressed in lymphatic endothelium as well as lymphangiomas, and Kaposi sarcomas. Podoplanin has also been shown to be expressed in epithelioid mesotheliomas and seminomas.

For full references and product details please see the product insert.

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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