Vimentin-1


IMMUNOGEN: Purified vimentin from bovine eye lens.

REACTIVITY ACCORDING TO MANUFACTURER:
This antibody reacts with vimentin, the 57 kDa intermediate filament protein present in cells of mesenchymal origin. It shows a broad interspecies cross-reactivity, recognizing human vimentin as well as vimentin from rat and chicken. It does not cross-react with desmin, keratin, neurofilament and glial fibrillary acidic protein.

Normal tissues: It labels mesenchymal cells, endothelial cells, fibroblasts and smooth muscle. Some cells coexpress another intermediate filament (e.g. vascular smooth muscle cells that express vimentin and desmin or some glial cells that express GFAP and vimentin). This antibody reacts with an epitope more resistant to formalin fixation than the epitope reacting with clone V9 (vimentin-2).

Tumor cells: It labels tumors of mesenchymal origin. It also labels some tumors that coexpress vimentin and cytokeratin (e.g. thyroid carcinomas, and some renal carcinomas and breast carcinomas). Coexpression of desmin and vimentin is present in rhabdomyosarcomas, alveolar soft tissue sarcomas and leiomyosarcomas.

STAINING PROCEDURE ACCORDING TO MANUFACTURER:
It can be used on formalin-fixed, paraffin-embedded tissue sections. It is necessary pretreatment with proteolytic enzymes.

Immunoperoxidase or alkaline phosphatase methods are suitable.

Suggested dilution for APAAP methods is 1/100-1/200.

It can be used on acetone-fixed cryostat or fixed cell smears.

WORKING DILUTION: 1/100. Pretreatment with proteinase K.

METHOD: LSAB 2-PO. 30 min. RT

CELLS/TISSUES STAINED (canine tissues unless specified):
Skin: Fibroblasts, some lymphocytes and monocytes, mast cells, endothelium, vessel walls.

REFERENCES:


Vimentin-2

IMMUNOGEN: Purified vimentin from porcine eye lens.
SPECIFICITY/REACTIVITY ACCORDING TO MANUFACTURER: This antibody reacts with vimentin, the 57kDa intermediate filament protein present in cells of mesenchymal origin. The antibody shows a broad interspecies cross-reactivity recognizing human vimentin as well as vimentin from rat and chicken. No reaction with other closely related intermediate filament proteins including desmin, keratin, neurofilament and glial fibrillary acidic protein in immunoblotting analyses.

This antibody has been utilized to monitor the quality of antigen preservation and uniformity of tissue fixation in formalin-fixed, paraffin-embedded tissue sections.

Normal tissues: This antibody labels a variety of cells of mesenchymal origin. Cell types which are clearly labeled with the antibody include lymphoid cells, endothelial cells, fibroblasts and smooth muscle cells. Some cells coexpress another intermediate filament protein besides vimentin. Examples of this are vascular smooth muscle cells, which coexpress desmin and vimentin, and some glial cells which contain both glial fibrillary acidic protein and vimentin.

Tumor cells: This antibody reacts with a variety of tumors which express vimentin (see table). A number of tumors coexpress vimentin and cytokeratin, e.g. thyroid carcinomas, mixed tumors of salivary gland, and some renal carcinomas and in a fraction of breast carcinomas. Coexpression of desmin and vimentin has been reported in a number of soft tissue tumors such as rhabdomyosarcomas, alveolar soft tissue sarcomas and leiomyosarcomas.

STAINING PROCEDURE ACCORDING TO MANUFACTURER:

Formalin-fixed, paraffin-embedded tissue sections: To improve the staining pattern, heat-based antigen retrieval can be used. For LSAB methods the suggested dilution is 1/25-1/50. NOTE: Enzyme digestion is not necessary and may even reduce the labeling intensity.

Frozen sections and cell smears: using acetone-fixed specimens. APAAP methods is recommended for cell smears. Suggested dilution of 1/10-1/25 for frozen sections.


METHOD: LSAB 2-PO. 30 min. RT.

CELLS/TISSUES STAINED (CANINE UNLESS SPECIFIED):

Skin: Endothelium, smooth muscle from vessels, nerve tissue, fibroblasts, occasional lymphocytes; probably myoepithelium.

REFERENCES:


