Vimentin Recombinant Antibody - Mouse IgG1 (Chimeric)

HA601662

Product Type:	Recombinant Chimeric Antibody, primary antibodies
Species reactivity:	Human
Applications:	IF-Cell, IHC-P
Molecular Wt:	Predicted band size: 54 kDa
Clone number:	PDH0-01

Description: Vimentin (57 kDa) is the most ubiquituos intermediate filament protein and the first to be expressed during cell differentiation. All primitive cell types express vimentin but in most non-mesenchymal cells it is replaced by other intermediate filament proteins during differentiation. Vimentin is expressed in a wide variety of mesenchymal cell types: fibroblasts, endothelial cells etc., and in a number of other cell types derived from mesoderm, e.g., mesothelium and ovarian granulosa cells. Vimentin is present in many different neoplasms but is particulary expressed in those originated from mesenchymal cells. Sarcomas e.g., fibrosarcoma, malignt fibrous histiocytoma, angiosarcoma, and leio- and rhabdomyosarcoma, as well as lymphomas, malignant melanoma and schwannoma, are virtually always vimentin positive. Mesoderm derived carcinomas like renal cell carcinoma, adrenal cortical carcinoma and adenocarcinomas from endometrium and ovary usually express vimentin. Also thyroid carcinomas are vimentin positive. Any low differentiated or sarcomatoid carcinoma may express some vimentin. Vimentin is frequently included in the so-called primary panel (together with CD45, cytokeratin, and S-100 protein): Intense staining reaction for vimentin without coexpression of other intermediate filament proteins is strongly suggestive of a mesenchymal tumour or a malignant melanoma. However, in biopsies representing only a sarcomatoid part of renal cell carcinoma a.o. a strong positivity for vimentin without cytokeratin expression may be seen. Tumours like lymphomas and seminomas have the same intermediate filament profile, but the vimentin expression is usually weaker.

Immunogen:	Synthetic peptide within C-terminal human Vimentin.
Positive control:	HeLa, Human Appendix, Human Kidney.
Subcellular location:	Cytoplasm.
Database links:	SwissProt: P08670 Human
Recommended Dilutions:	
IF-Cell	1:200
IHC-P	1:1,000
Storage Buffer:	1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.
Storage Instruction:	Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.
Purity:	Protein A affinity purified.

Images

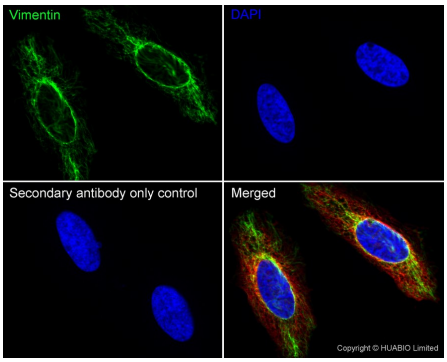

Fig1: Application: Immunocytochemistry (IF-cell)

Species: Human
Sample: HeLa (Human cervix adenocarcinoma epithelial cell)

Fixation: 4% Paraformaldehyde, 15 minutes at room temperature.
Permeabilization: 0.1% Triton X-100, 15 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 1 hour at room temperature.
Antibody dilution buffer: 1% BSA in PBST.

Primary antibody: HA601662, 1/200, overnight at 4°C.
Secondary antibody: Goat Anti-Mouse IgG (iFluor™ 488, HA1125), 45 minutes at room temperature.
Counterstain: Beta tubulin (ET1602-4, Red), 1/500, overnight at 4℃. The nuclear counterstain was DAPI (Blue).

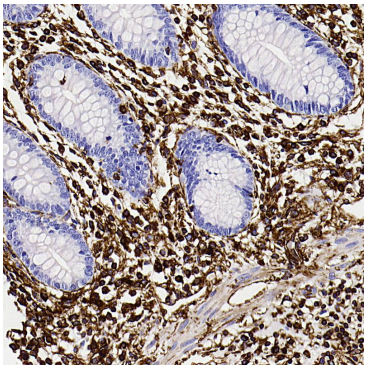

Fig2: Application: Immunohistochemistry (IHC-P)

Species: Human
Tissue: Appendix
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601662, 1/1,000, 1 hour at room temperature.
Secondary antibody: HA1120, 20 minutes at room temperature.

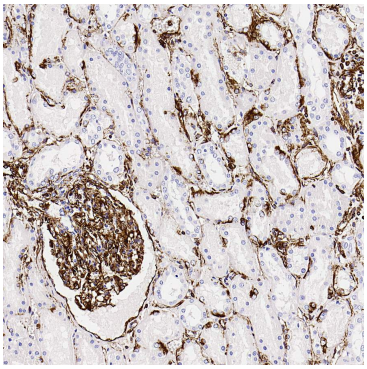

Fig3: Application: Immunohistochemistry (IHC-P)

Species: Human
Tissue: Kidney
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601662, 1/1,000, 1 hour at room temperature.
Secondary antibody: HA1120, 20 minutes at room temperature.

Background References

1. Ridge KM et al. Roles of vimentin in health and disease. Genes Dev. 2022 Apr
2. Kuburich NA et al. Vimentin and cytokeratin: Good alone, bad together. Semin Cancer Biol. 2022 Nov