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Vimentin Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2739B

Specification

Vimentin Antibody (C-term) - Product Information

Application	**IF, WB, IHC-P, FC,E**
Primary Accession	P08670
Other Accession	P31000, P02543, P20152, Q4R4X4, P48670, P09654, P48616, P24790
Reactivity	**Human**
Predicted	**Xenopus, Bovine, Chicken, Hamster, Monkey, Mouse, Pig, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**430-457**

Vimentin Antibody (C-term) - Additional Information

Gene ID 7431

Other Names
Vimentin, VIM

Target/Specificity
This Vimentin antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 430-457 amino acids from the C-terminal region of human Vimentin.

Dilution
IF~~1:100
WB~~1:1000
IHC-P~~1:10~50
FC~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Vimentin Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Vimentin Antibody (C-term) - Protein Information

Name VIM

Function Vimentins are class-III intermediate filaments found in various non-epithelial cells, especially mesenchymal cells. Vimentin is attached to the nucleus, endoplasmic reticulum, and mitochondria, either laterally or terminally.

Cellular Location
Cytoplasm. Cytoplasm, cytoskeleton. Nucleus matrix {ECO:0000250|UniProtKB:P31000}. Cell membrane {ECO:0000250|UniProtKB:P20152}

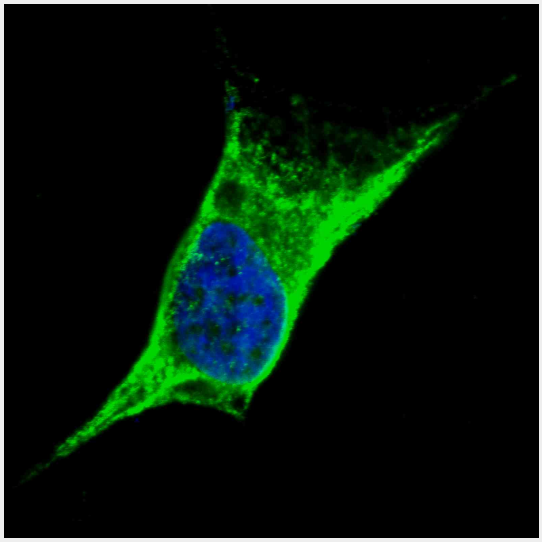
Tissue Location
Highly expressed in fibroblasts, some expression in T- and B-lymphocytes, and little or no expression in Burkitt's lymphoma cell lines. Expressed in many hormone-independent mammary carcinoma cell lines.

Vimentin Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

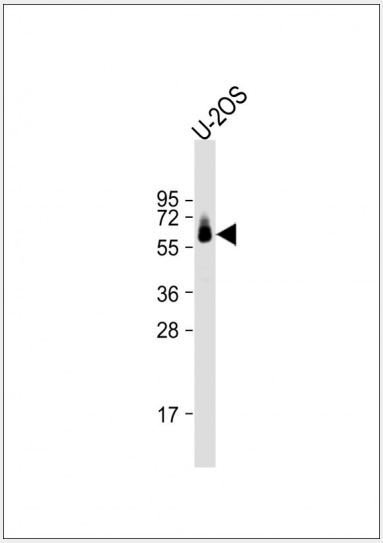
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Vimentin Antibody (C-term) - Images

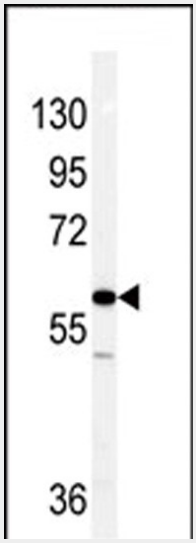


Fluorescent confocal image of SY5Y cells stained with Vimentin (C-term) antibody. SY5Y cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with AP2739b Vimentin (C-term) primary antibody (1:100, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 µg/ml, 5 min). Note the highly specific localization of the Vimentin immunosignal to the cytoskeleton, supported by Human Protein Atlas Data (http://www.proteinatlas.org/ENSG00000026025).

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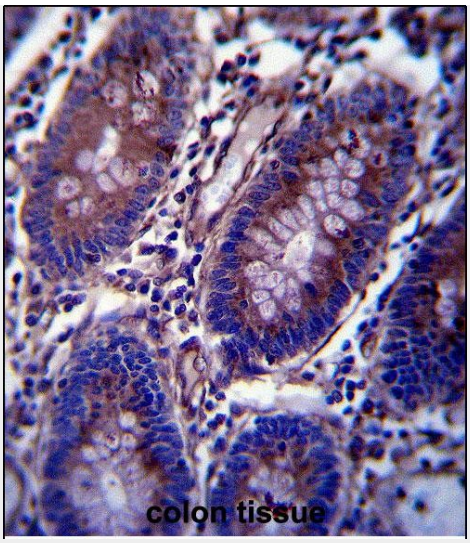


Anti-Vimentin Antibody (C-term) at 1:1000 dilution + U-2OS whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 54 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

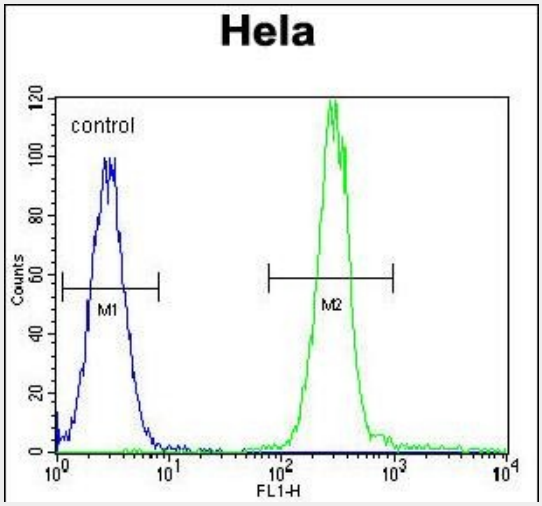


Western blot analysis of Vimentin antibody (C-term) (Cat.#AP2739b) in NCI-H460 cell line lysates (35ug/lane). Vimentin (arrow) was detected using the purified Pab .

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Vimentin Antibody (C-term) (Cat. #AP2739b)immunohistochemistry analysis in formalin fixed and paraffin embedded human colon tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of Vimentin Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



Vimentin Antibody (C-term) (Cat. #AP2739b) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Vimentin Antibody (C-term) - Background

Along with the microfilaments (actins) and microtubules (tubulins), the intermediate filaments represent a third class of well-characterized cytoskeletal elements. The subunits display a tissue-specific pattern of expression. Desmin is the subunit specific for muscle and vimentin the subunit specific for mesenchymal tissue.

Vimentin Antibody (C-term) - References

References for protein:
1.Whipple,R.A.,Cancer Res. 68 (14), 5678-5688 (2008)
2.Garcia-Verdugo,I.,Biochemistry 47 (18), 5127-5138 (2008)
3.Merdes,A., J. Cell Biol. 115 (2), 397-410 (1991)
References for SY5Y (SH-SY5Y; ATCC#CRL-2266): 1. Ross RA, et al. Coordinate morphological and biochemical interconversion of human neuroblastoma cells. J. Natl. Cancer Inst. 71: 741-749, 1983.

[PubMed: 6137586]; 2. Biedler JL, et al. Multiple neurotransmitter synthesis by human neuroblastoma cell lines and clones. Cancer Res. 38: 3751-3757, 1978. [PubMed: 29704]

Vimentin Antibody (C-term) - Citations

- Erianin, a novel dibenzyl compound in Dendrobium extract, inhibits lung cancer cell growth and migration via calcium/calmodulin-dependent ferroptosis
- Combinative treatment of β-elemene and cetuximab is sensitive to KRAS mutant colorectal cancer cells by inducing ferroptosis and inhibiting epithelial-mesenchymal transformation
- Antioxidation and Antiapoptosis Characteristics of Heme Oxygenase-1 Enhance Tumorigenesis of Human Prostate Carcinoma Cells
- miR-27b-3p/MARCH7 regulates invasion and metastasis of endometrial cancer cells through Snail-mediated pathway.
- Inhibition of ATM reverses EMT and decreases metastatic potential of cisplatin-resistant lung cancer cells through JAK/STAT3/PD-L1 pathway.
- Identification of aberrantly expressed F-box proteins in squamous-cell lung carcinoma.
- Down-regulation of TCF21 by hypermethylation induces cell proliferation, migration and invasion in colorectal cancer.
- Pituitary tumor transforming gene PTTG2 induces psoriasis by regulating vimentin and E-cadherin expression.