10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Vimentin Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2739B

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, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB16691
Calculated MW	53652
Antigen Region	430-457

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~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
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.

Protein Information

Name	VIM (HGNC:12692)
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. Plays a role in cell directional movement, orientation, cell sheet organization and Golgi complex polarization at the cell migration front (By similarity). Protects SCRIB from proteasomal degradation and facilitates its localization to intermediate filaments in a cell contact-mediated manner (By similarity). May promote axon outgrowth and motor fiber repair via DSP-mediated recruitment to outgrowth tips (By similarity).
Cellular Location	Cytoplasm. Cytoplasm, cytoskeleton. Nucleus matrix {ECO:0000250|UniProtKB:P31000}. Cell membrane {ECO:0000250|UniProtKB:P20152}. Cell projection, axon {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.

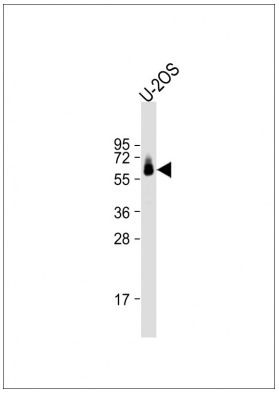
Background

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.

References

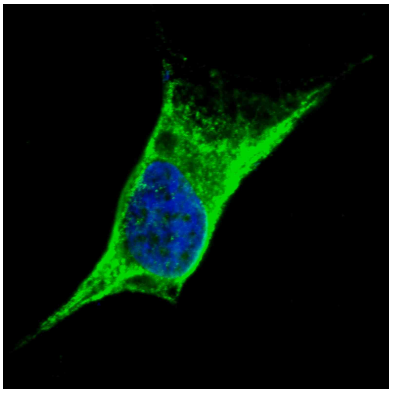
References for protein:
1.Whipple,R.A.,Cancer Res. 68 (14), 5678-5688 (2008)
2.Garcia-Verdugo,I.,Biochemistry 47 (18), 5127-5138 (2008)
3.Merdes,A., J. Cell Biol. 115 (2), 397-410 (1991)
References for SY5Y (SH-SY5Y; ATCC#CRL-2266): 1. Ross RA, et al. Coordinate morphological and biochemical interconversion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

Images

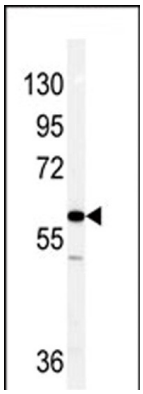


Anti-Vimentin Antibody (C-term) at 1:1000 dilution + U-2OS whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 54 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

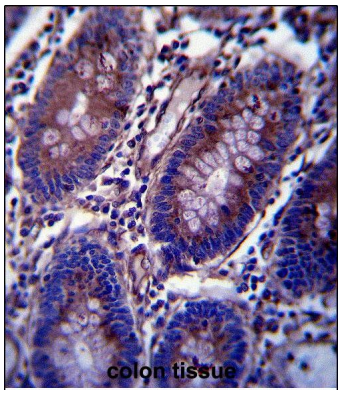
Fluorescent confocal image of SY5Y cells stained with Vimentin (C-term) antibody. SY5Y cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with AP2739b Vimentin (C-term) primary antibody (1:100, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488



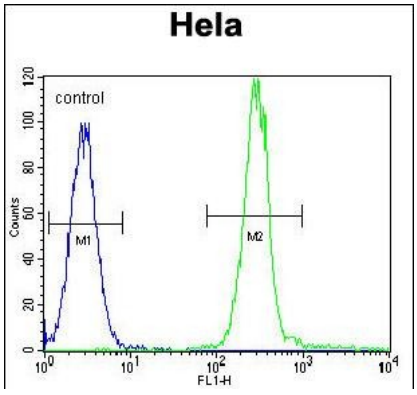
conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 µg/ml, 5 min). Note the highly specific localization of the Vimentin immunosignal to the cytoskeleton, supported by Human Protein Atlas Data (http://www.proteinatlas.org/ENSG00000026025).



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 .



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.

Citations

- Erianin, a novel dibenzyl compound in Dendrobium extract, inhibits lung cancer cell growth and migration via calcium/calmodulin-dependent ferroptosis
- Antioxidation and Antiapoptosis Characteristics of Heme Oxygenase-1 Enhance Tumorigenesis of Human Prostate Carcinoma Cells
- Combinative treatment of β-elemene and cetuximab is sensitive to KRAS mutant colorectal cancer cells by inducing ferroptosis and inhibiting epithelial-mesenchymal transformation

- 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.
- 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.
- Identification of aberrantly expressed F-box proteins in squamous-cell lung carcinoma.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.