# abcam

### Product datasheet

## Anti-Vimentin antibody ab188499

4 References 4 Images

Overview

Product name Anti-Vimentin antibody

**Description** Rabbit polyclonal to Vimentin

Host species Rabbit

Tested applications Suitable for: ICC/IF, WB

Species reactivity Reacts with: Mouse, Human

Predicted to work with: Chimpanzee, Mammals, Cynomolgus monkey

**Immunogen** Recombinant full length protein corresponding to Human Vimentin aa 1 to the C-terminus.

(Purified from E. coli). Database link: **P08670** 

Run BLAST with
Run BLAST with

Positive control WB: HeLa cell extract; HeLa, SH-SY5Y, HEK-293 and NIH/3T3 whole cell lysates. ICC/IF: HeLa

cells.

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

**Properties** 

Form Liquid

**Storage instructions** Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

Storage buffer Preservative: 0.07% Sodium azide

**Purity** Whole antiserum

**Clonality** Polyclonal

**Isotype** IgG

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### **Applications**

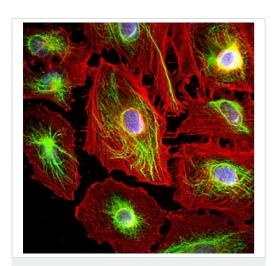
The Abpromise guarantee

Our <u>Abpromise guarantee</u> covers the use of ab188499 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

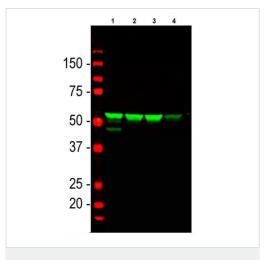
Application	Abreviews	Notes
ICC/IF		1/5000.
WB		1/10000. Detects a band of approximately 55 kDa (predicted molecular weight: 53 kDa).

Target		
Function	Vimentins are class-Ill 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.  Involved with LARP6 in the stabilization of type I collagen mRNAs for CO1A1 and CO1A2.	
Tissue specificity	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.	
Involvement in disease	Cataract 30	
Sequence similarities	Belongs to the intermediate filament family.	
Domain	The central alpha-helical coiled-coil rod region mediates elementary homodimerization.  The [IL]-x-C-x-x-[DE] motif is a proposed target motif for cysteine S-nitrosylation mediated by the iNOS-S100A8/A9 transnitrosylase complex.	
Post-translational modifications	Filament disassembly during mitosis is promoted by phosphorylation at Ser-55 as well as by nestin (By similarity). One of the most prominent phosphoproteins in various cells of mesenchymal origin. Phosphorylation is enhanced during cell division, at which time vimentin filaments are significantly reorganized. Phosphorylation by PKN1 inhibits the formation of filaments. Phosphorylated at Ser-56 by CDK5 during neutrophil secretion in the cytoplasm. Phosphorylated by STK33.  O-glycosylated during cytokinesis at sites identical or close to phosphorylation sites, this interferes with the phosphorylation status.  S-nitrosylation is induced by interferon-gamma and oxidatively-modified low-densitity lipoprotein (LDL(ox)) possibly implicating the iNOS-S100A8/9 transnitrosylase complex.	
Cellular localization	Cytoplasm.	
Form	Vimentin is found in connective tissue and in the cytoskeleton.	
Images		



Immunocytochemistry/ Immunofluorescence - Anti-Vimentin antibody (ab188499)

HeLa (human epithelial cell line from cervix adenocarcinoma) cells stained for Vimentin (green) using ab188499 at 1/5000 dilution in ICC/IF. Counterstained with mouse mAb to Actin at 1/500 dilution (red). Blue is DAPI staining of nuclear DNA.



Western blot - Anti-Vimentin antibody (ab188499)

All lanes: Anti-Vimentin antibody (ab188499) at 1/5000 dilution

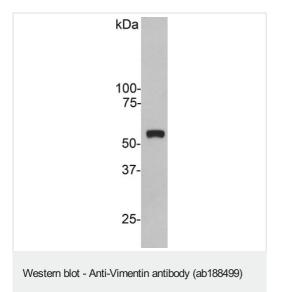
**Lane 1 :** HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate

**Lane 2**: SH-SY5Y (human neuroblastoma cell line from bone marrow) whole cell lysate

**Lane 3**: HEK-293 (human epithelial cell line from embryonic kidney) whole cell lysate

Lane 4: NIH/3T3 (mouse embyro fibroblast cell line) whole cell lysate

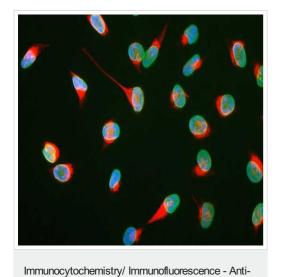
Predicted band size: 53 kDa



Anti-Vimentin antibody (ab188499) at 1/10000 dilution + HeLa cell extract

Developed using the ECL technique.

Predicted band size: 53 kDa



ab188499 at 1/5000 dilution (red). Counter stained with a monoclonal antibody to Lamin A + C (green). DNA is stained blue.

Immunofluorescent analysis of HeLa cells labeling Vimentin with

Vimentin antibody (ab188499)

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