

Product datasheet

PE Anti-Vimentin antibody [VI-RE/1] α b49918

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Overview

Product name	PE Anti-Vimentin antibody [VI-RE/1]
Description	PE Mouse monoclonal [VI-RE/1] to Vimentin
Host species	Mouse
Conjugation	PE. Ex: 488nm, Em: 575nm
Specificity	The antibody VI-RE/1 reacts with human vimentin, a 57 kDa intermediate filament protein expressed on a wide variety of mesenchymal and mesodermal cell types.
Tested applications	Suitable for: ICC/IF, Flow Cyt (Intra)
Species reactivity	Reacts with: Human Does not react with: Mouse, Pig
Immunogen	Recombinant full length protein corresponding to Human Vimentin. Database link: P08670
Positive control	ICC/IF: HeLa cells Flow cyt: LEP-19 cells.
General notes	Conjugated with R-Phycoerythrin (PE) under optimum conditions. 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.
Storage buffer	pH: 7.4 Preservative: 0.097% Sodium azide Constituents: PBS, 0.2% BSA
Purity	Size exclusion
Purification notes	Purified antibodies – protein A (G) affinity chromatography before conjugation. Conjugated

	antibodies –site exclusion chromatography.
Clonality	Monoclonal
Clone number	VI-RE/1
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab49918 in the following tested applications.

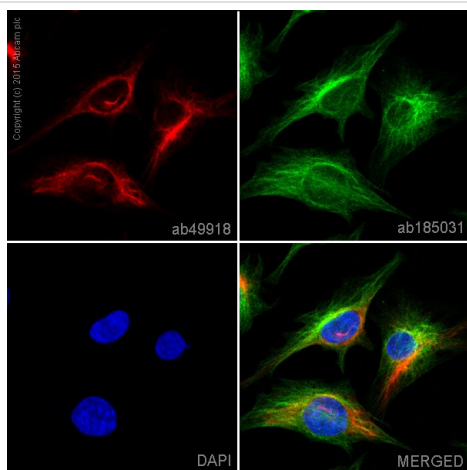
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 10 µg/ml.
Flow Cyt (Intra)		Use a concentration of 1 - 5 µg/ml.

Target

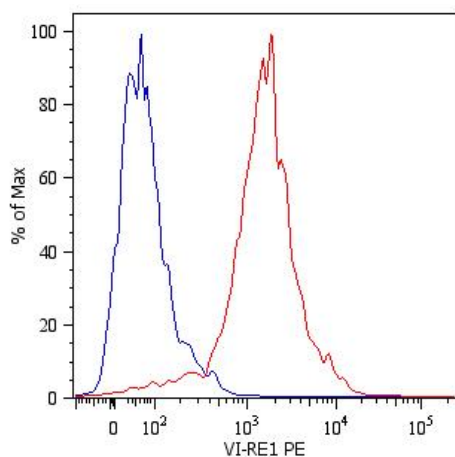
Function	Vimentins are class-III intermediate filaments found in various non-epithelial cells, especially mesenchymal cells. Vimentin is attached to the nucleus, endoplasmic reticulum, and mitochondria, either laterally or terminally. Involved with LARP6 in the stabilization of type I collagen mRNAs 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-density 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 - PE
Anti-Vimentin antibody [VI-RE/1] (ab49918)

ab49918 staining Vimentin in HeLa cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized in 0.1% Triton X-100 for 5 minutes and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab49918 at a working concentration of 10µg/ml (shown in red) and **ab185031**, Rabbit monoclonal [EP1332Y] to alpha Tubulin (Alexa Fluor® 488, shown in green) at 1/250 overnight at +4°C. Nuclear DNA was labelled in blue with DAPI. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Flow Cytometry (Intracellular) - PE Anti-Vimentin
antibody [VI-RE/1] (ab49918)

Flow cytometry analysis (intracellular staining) of Vimentin in LEP-19 human fibroblast cell line using ab49918 anti-human Vimentin (VI-RE/1) PE. Overlay with Isotype mouse IgG1 control.

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