abcam

ab8978

Anti-Vimentin antibody [RV202] - Cytoskeleton Marker

Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978) is a mouse monoclonal antibody detecting Vimentin in **Western Blot, Flow Cytometry (Intra), IHC-P, IHC-Fr, ICC/IF**. Suitable for **Human, Mouse, Pig, Rat, Zebrafish**.

- KO validated for confirmed specificity
- Over 570 publications
- Trusted since 2002

Lab Essentials | KO Validated

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.09% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Native Full Length Protein corresponding to Cow VIM. Database link P48616
Clone number	RV202
Purification technique	Affinity purification Protein G
Specificity	This antibody reacts exclusively with vimentin, which is expressed in mesenchymal cells and mesenchymal derived tumors e.g. lymphoma, sarcoma and melanoma.
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/100 - 1/200
Notes	-

Expected

Species	Mouse, Rat, Pig, Zebrafish
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

Species	Human, Rat, Pig, Zebrafish
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/1000
Notes	We recommend ab92547 as an alternative for IHC-P with mouse samples.

Expected

Species	Mouse, Rat, Pig, Zebrafish
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Rat
Dilution info	1 µg/mL
Notes	-

Species	Human
Dilution info	1 µg/mL
Notes	-

Expected

Species	Mouse, Pig, Zebrafish
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-Fr

Tested

Species	Pig
Dilution info	-
Notes	Recommended range is 1/100 - 1/200 for Immunohistochemistry with avidin-biotinylated horseradish peroxidase complex (ABC) as detection. For PFA fixed tissue use at 1/1000.

Species	Zebrafish
Dilution info	-
Notes	Recommended range is 1/100 - 1/200 for Immunohistochemistry with avidin-biotinylated horseradish peroxidase complex (ABC) as detection. For PFA fixed tissue use at 1/1000.

Expected

Species	Human, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information 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. 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). Involved with LARP6 in the stabilization of type I collagen mRNAs for CO1A1 and CO1A2.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978) is a mouse monoclonal antibody and is validated for use in Flow Cyt (Intra), ICC/IF, IHC-Fr, IHC-P, WB in mouse samples.

Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978) has been cited over 570 times in peer reviewed

journals and is trusted by the scientific community.

Abcam's high quality validation processes ensure Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978) has high sensitivity and specificity.

The specificity of Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978) has been confirmed by testing in knockout samples.

Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978) has 44 independent reviews from customers.

Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978) specifically detects Vimentin (UniProt ID: P08670; Molecular weight: 54kDa) and is sold in 100 µg selling sizes.

Antibody clone RV202 is also available pre-conjugated to FITC for your convenience (ab128507).

Vimentin (57 kDa) is the intermediate filament protein (IFP) of mesenchymal cells. This IFP however often deviates from the tissue-specific and developmentally regulated pattern of expression. Besides its typical expression in most cultured cells, vimentin is also expressed together with several other IFPs during early stages of development. As differentiation proceeds, vimentin is exchanged for the tissue-specific intermediate filament type. Also in cancers, vimentin is often expressed in addition to the tissue-specific IFP.
RV202 is a mouse monoclonal IgG1 antibody derived by fusion of SP2/0-Ag14 mouse myeloma cells with spleen cells from a BALB/c mouse immunized with a cytoskeletal vimentin extract of calf lens.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

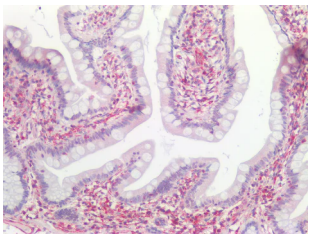
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

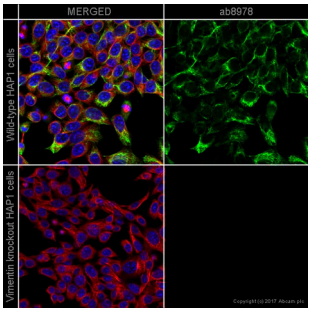
20 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Vimentin antibody

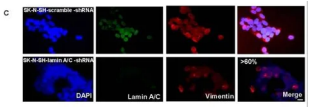
Immunohistochemistry analysis of formalin fixed, paraffin embedded section of human small intestine labeling Vimentin with ab8978; showing positive staining in connective tissue cells and no reactivity in epithelial cells.



Immunocytochemistry/ Immunofluorescence - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Vimentin antibody

ab8978 staining Vimentin in wild-type HAP1 cells (top panel) and VIM knockout HAP1 cells (bottom panel). The cells were fixed with 100% methanol (5min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab8978 at 1µg/ml and ab202272 (Rabbit monoclonal [EP1332Y] to alpha Tubulin (Alexa Fluor® 594)) at 1/250 dilution overnight at +4°C, followed by a further incubation at room temperature for 1h with ab150117 (Goat secondary antibody to Mouse IgG (Alexa Fluor® 488)) at 2 µg/ml (shown in green). Nuclear DNA was labelled in blue with DAPI. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



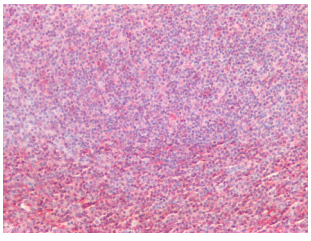
Rauschert, I. et al PLoS One. 2017 Apr 19;12(4):e0175953. doi: 10.1371/journal.pone.0175953. eCollection 2017 Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/

Immunocytochemistry/ Immunofluorescence - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Silencing of Lamin A/C in unmethylated neuroblastoma cells induces changes in different cytoskeletal components
Immunofluorescence staining showing changes in SK-N-SH-lamin-A/C-shRNA compared with SK-N-SH-scramble-shRNA in (A) β-actin filaments, (B) F-actin filaments. (C) Vimentin filaments, and (D) α-tubulin. Lamin A/C is shown in green; β-actin, F-actin, vimentin, and α-tubulin are shown in red.DNA is stained in blue (DAPI). Scale bar, 10µM.

Vimentin is detected using ab8978 at 1/100 dilution. Neuroblastoma cells were fixed with 4% paraformaldehyde and permeabilized using 0.5% Triton X-100.

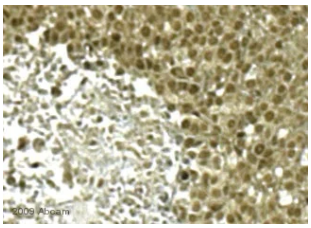
(From Figure 5C of Rauschert et al)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Vimentin antibody

Immunohistochemistry analysis of formalin fixed, paraffin embedded section of human spleen labeling Vimentin with ab8978, showing positive staining in connective tissue cells and lymphoid cells.



This image is courtesy of an anonymous customer review.

Immunohistochemistry (Frozen sections) - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Immunohistochemistry (Frozen sections) staining using mouse Anti-Vimentin antibody

ab8978 staining Vimentin in human lung tissue section by Immunohistochemistry (Frozen sections). Tissue samples were fixed with formaldehyde and blocking with 5% commercially available blocking agent was performed at 37^0C for 15 minutes. The sample was incubated with primary antibody (1/250) at 37^0C for 1 hour. A HRP-conjugated Goat polyclonal to mouse IgG was used as secondary antibody at 1/1000 dilution.

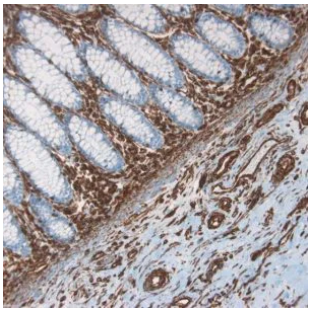


This image is courtesy of a customer review submitted by Jennifer Dembinski

Immunocytochemistry/ Immunofluorescence - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Vimentin antibody

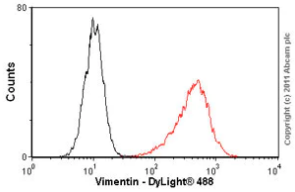
ab8978 staining vimentin in human pancreatic adenocarcinoma cells by immunocytochemistry/ immunofluorescence. Cells were PFA fixed and permeabilized in 0.2% Triton X prior to blocking in 3% BSA for 30 minutes at 24°C. The primary antibody was diluted 1/200 and incubated with the sample for 16 hours at 21°C. Alexa fluor® 488 mouse polyclonal to mouse Ig, diluted 1/300 was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Vimentin antibody

Paraffin-embedded human colon tissue stained for Vimentin using ab8978 at 1/100 dilution in immunohistochemical analysis.

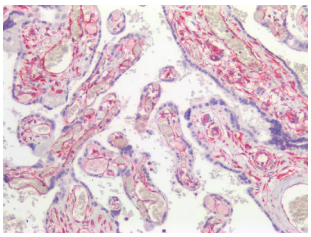


Flow Cytometry (Intracellular) - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Flow Cytometry (Intracellular) staining using mouse Anti-Vimentin antibody

Overlay histogram showing HeLa cells stained with ab8978 (red line). The cells were fixed with methanol (5 min) and then permeabilized with 0.1% PBS-Triton for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab8978, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10^6 cells)

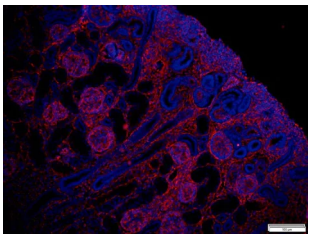
used under the same conditions. Acquisition of >5,000 events was performed. This anti-Vimentin antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde (10 min)/permeabilized in 0.1% PBS-Triton used under the same conditions.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Vimentin antibody

Immunohistochemistry analysis of formalin fixed, paraffin embedded section of human placenta labeling Vimentin with ab8978, showing positive staining in connective tissue cells and no reactivity in epithelial cells.

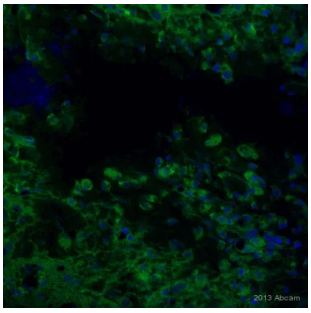


This image is courtesy of an anonymous customer review.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Vimentin antibody

ab8978 staining Vimentin in human fetal kidney tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with CAS-Block for 1 hour at 25°C; antigen retrieval was by heat mediation using OmniPrep (pH 9). Samples were incubated with primary antibody (1/500) for 1 hour at 25°C. An Alexa Fluor® 555-conjugated Donkey polyclonal (1/200) was used as the secondary antibody.

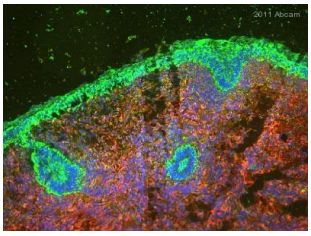


This image is courtesy of Dr. Ruma Raha-Chowdhury, Cambridge University, United Kingdom.

Immunocytochemistry/ Immunofluorescence - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Vimentin antibody

IHC-FoFr image of vimentin staining on rat injured cortical sections using ab8978 (1:500). The brain was perfusion fixed using 4% PFA and the sections were permeabilized using 0.1% TritonX in 0.1% PBS. The sections were then blocked using 10% donkey serum for 1 hour at 24°C. ab8978 was diluted 1:500 and incubated with sections for 24 hours using 4°C. The secondary antibody used was donkey polyclonal to rabbit IgG conjugated to Alexa Fluor 488.



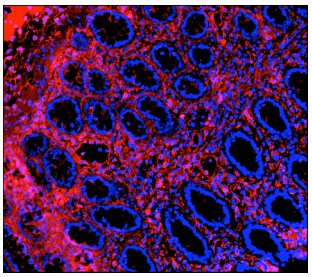
Immunohistochemistry (Frozen sections) - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Immunohistochemistry (Frozen sections) staining using mouse Anti-Vimentin antibody

IHC-Fr image of Ed18 rat stained with ab8978. Fresh frozen sections were incubated in 10% normal donkey serum in 0.1% PBS- and 0.3% triton X100 for 1h to permeabilise the tissues and block non-specific protein-protein interactions. The sectons were then incubated with the ab8978 (1µg/ml)

Image courtesy of a customer review submitted by Dr Ruma Raha-Chowdhury

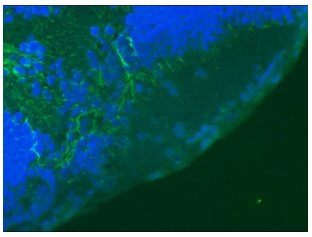
and ferroportin overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 donkey anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 568 (red) donkey anti-mouse at a 1/1000 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM. Vimentin expressed in the gut muscles.



Immunohistochemistry (Frozen sections) - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Immunohistochemistry (Frozen sections) staining using mouse Anti-Vimentin antibody

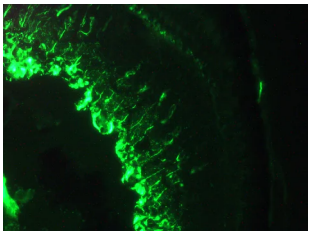
Immunohistochemistry analysis of frozen section of pig colon labeling Vimentin with ab8978, showing positive staining in connective tissue cells and no reactivity in epithelial cells. Nuclear staining with DAPI.



Immunohistochemistry (Frozen sections) - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Immunohistochemistry (Frozen sections) staining using mouse Anti-Vimentin antibody

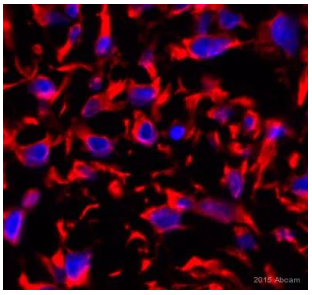
Immunofluorescence staining images of 9 day old zebrafish embryos. ab8978 reacts with in connective tissue cells and bloodvessels. Frozen sample treated with Acetone:Methanol 1:1, antibody diluted 1/100 and incubated for 45 minutes at room temperature.



Immunohistochemistry (Frozen sections) - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Immunohistochemistry (Frozen sections) staining using mouse Anti-Vimentin antibody

Immunohistochemistry analysis of frozen section of zebrafish embryo labeling Vimentin with ab8978.

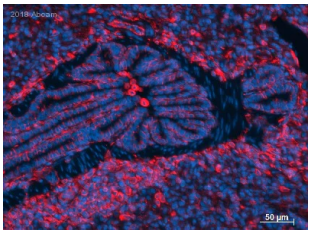


This image is courtesy of an anonymous customer review.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Vimentin antibody

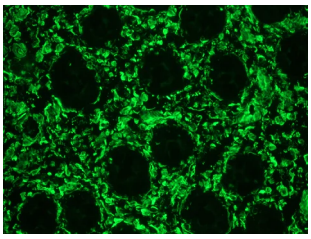
ab8978 staining Vimentin in dog soft tissue sarcoma tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 15% serum for 1 hour at 20°C; antigen retrieval was by heat mediation in a Tris/EDTA pH9 buffer. Samples were incubated with primary antibody (1/100 in TBS) for 18 hours at 20°C. A Alexa Fluor® 647-conjugated Goat anti-mouse IgG polyclonal (1/400) was used as the secondary antibody.



This image is courtesy of an anonymous customer review

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

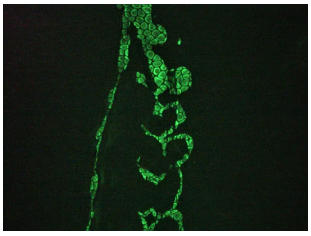
Immunohistochemistry analysis (Formalin/PFA-fixed paraffin-embedded sections) of 10% normal buffered formalin-fixed pig lung tissue. Stained with ab8978 at 1/300 dilution. Secondary antibody used was CY3 conjugated donkey anti-mouse secondary antibody at 1/200 dilution. Blocking was done with 5% serum for 1 hour at 22°C. The sample was incubated with the primary antibody for 16 hours at 4°C. Antigen retrieval method was heat mediated, TE pH9.



Immunohistochemistry (Frozen sections) - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Immunohistochemistry (Frozen sections) staining using mouse Anti-Vimentin antibody

Immunohistochemistry analysis of frozen section of pig colon labeling Vimentin with ab8978, showing positive staining in connective tissue cells and no reactivity in epithelial cells.



Immunohistochemistry (Frozen sections) - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Vimentin Immunohistochemistry (Frozen sections) staining using mouse Anti-Vimentin antibody

Immunohistochemistry analysis of frozen section of zebrafish embryo labeling Vimentin with ab8978.



Western blot - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

All lanes:
Western blot - Anti-Vimentin antibody [RV202] - Cytoskeleton Marker (ab8978)

Lane 1:
NIH3T3 cell lysate

Lane 2:
Normal human dermal fibroblasts cell extracts.

Predicted band size: 53 kDa

Observed band size: 57 kDa

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