Vimentin Monoclonal Antibody (V9), eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Dog, Chicken, Human, Rat
Published Species	Dog, Human, Mouse
Host/Isotype	Mouse / IgG1, kappa
Class	Monoclonal
Type	Antibody
Clone	V9
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_10597910

Applications	Tested Dilution	Publications
Western Blot (WB)	1 µg/mL	7 Publications
Immunohistochemistry (IHC)	-	3 Publications
Immunohistochemistry (Paraffin) (IHC (P))	Assay-Dependent	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent	-
Immunocytochemistry (ICC/IF)	1-5 µg/mL	6 Publications
Flow Cytometry (Flow)	-	1 Publication

Product Specific Information

Description: The V9 monoclonal antibody recognizes human Vimentin, a 57 kDa protein that functions as a structural component of intermediate filaments. Vimentin is expressed in cells derived from the mesenchyme but also in specific populations such as radial glia and immature glial cells, pancreatic precursor cells. It is proposed to be a marker of cardiac differentiation. In neural cells, vimentin expression is gradually replaced by neurofilaments. Reports have also shown surface expression of vimentin on activated macrophages, platelets, as well as apoptotic T cells and neutrophils.

This antibody also recognizes canine (dog), rat and chicken vimentin but does not recognize mouse vimentin.

Applications Reported: This V9 antibody has been reported for use in western blotting, immunocytochemistry, and immunohistochemical staining of frozen (IHC-F) and formalin-fixed paraffin embedded tissue sections (IHC-P).

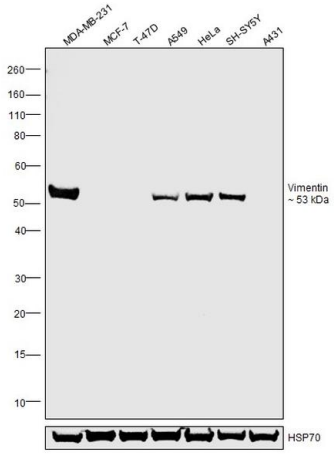
Applications Tested: This V9 antibody has been tested by immunocytochemistry on paraformaldehyde fixed and permeabilized SK-N-SH or C6 cell lines and by western blot on cell lysates prepared from HeLa cells. This antibody can be used at less than or equal to 1 µg/mL. It is recommended that this antibody be carefully titrated for optimal performance in the assay of interest.

Purity: Greater than 90%, as determined by SDS-PAGE.

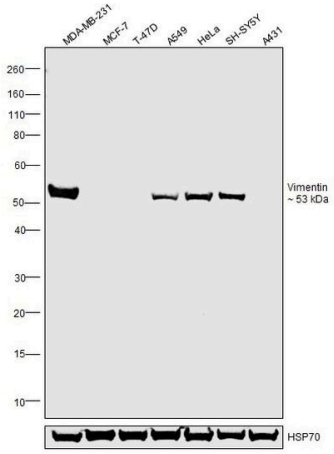
Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

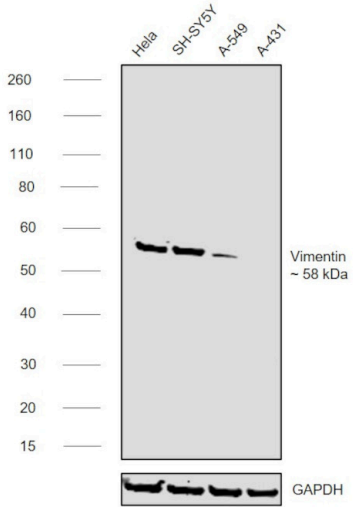
Product Images For Vimentin Monoclonal Antibody (V9), eBioscience™



Vimentin Antibody (14-9897-82) in WB
Western blot was performed using Anti-Vimentin Monoclonal Antibody (V9), eBioscience™(Product # 14-9897-80) and a 53kDa band corresponding to Vimentin was observed across cell lines tested. Whole Cell Extract-WCL (30 µg lysate) of MDA-MB-231 (Lane 1), MCF7 (Lane 2), T-47D (Lane 3), A549 (Lane 4), HeLa (Lane 5), SH-SY5Y (Lane 6), A-431 (Lane 7) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0321BOX). Resolved proteins were then transferred onto a Nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1 µg/mL) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1:4000) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005).



Vimentin Antibody (14-9897-82)
Antibody specificity was demonstrated by detection of differential basal expression of the target across cell lines owing to their inherent genetic constitution. Relative expression of Vimentin was observed in MDA-MB-23,low or negative in MCF-7 and T-47D. Similarly expression was observed high in HeLa as compared to low or negative in A-431 using Anti-Vimentin Monoclonal Antibody (V9), eBioscience™ (Product # 14-9897-80) in Western Blot.(https://doi.org/10.1371/journal.pone.0135851). {RE}



Vimentin Antibody (14-9897-82) in WB
Western blot was performed using Vimentin Monoclonal Antibody (V9), eBioscience™ (Product # 14-9897-82) and a ~58 kDa band corresponding to VIM was observed across cell lines tested. Whole cell extracts (30 µg lysate) of HeLa (Lane 1), SH-SY5Y (Lane 2), A549 (Lane 3), A-431 (Lane 4) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0321BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1 µg/mL) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1:20,000) using the iBright™ FL1500 Imaging System (Product # A44115). Chemiluminescent detection was performed using SuperSignal™ West Pico PLUS Chemiluminescent Substrate (Product # 34580).

View more figures on thermofisher.com

18 References

Western Blot (7)

iScience

Matrix stiffness induces epithelial-to-mesenchymal transition via Piezo1-regulated calcium flux in prostate cancer cells.

"Published figure using Vimentin monoclonal antibody (Product # 14-9897-82) in Western Blot"

Authors: Lopez-Cavestany M,Hahn SB,Hope JM,Reckhorn NT,Greenlee JD,Schwager SC,VanderBurgh JA,Reinhart-King CA,King MR

Year
2023

Theranostics

Theranostics application of tumor-initiating cell probe TiY in non-small cell lung cancer.

"Published figure using Vimentin monoclonal antibody (Product # 14-9897-82) in Western Blot"

Authors: Lee YA,Lek CCJ,Rong G,Wu Z,Shathishwaran S,Lee JHJ,Tam WL,Wuestefeld T,Park SJ,Jung S,Kim B,Kang NY,Chang YT

Year
2023

View more WB references on thermofisher.com

Immunohistochemistry (3)

Histochemistry and cell biology

Characterization of epithelial cells, connective tissue cells and immune cells in human upper airway mucosa by immunofluorescence multichannel image cytometry: a pilot study.

"Published figure using Vimentin monoclonal antibody (Product # 14-9897-82) in Immunocytochemistry"

Authors: Giotakis AI,Dudas J,Glueckert R,Dejaco D,Ingruber J,Fleischer F,Innerhofer V,Pinggera L,Bektic-Tadic L,Gabriel SAM,Riechelmann H

Year
2021

Bio-protocol

Induction of Epithelial-mesenchymal Transition in MDCK II Cells.

"14-9897-82 was used in Immunohistochemistry to provide a detailed protocol on how to induce EMT in Madin-Darby Canine Kidney (MDCK) II epithelial cell line and perform immunofluorescent staining on EMT-induced cells."

Authors: Pastua A,Lundmark R

Year
2021

Species
Dog

Dilution
1:500

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More applications with references on thermofisher.com

IHC (P) (1) **ICC/IF (6)** **Flow (1)**

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