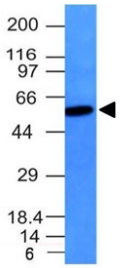
Vimentin Antibody Clone VM452 / VIM Mesenchymal Marker Antibody [clone VM452] (V3935)

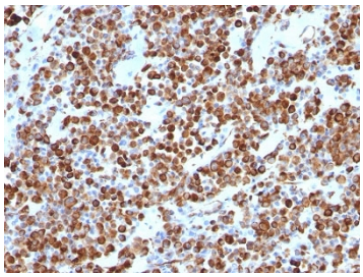
Catalog No.	Formulation	Size
V3935-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3935-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3935SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

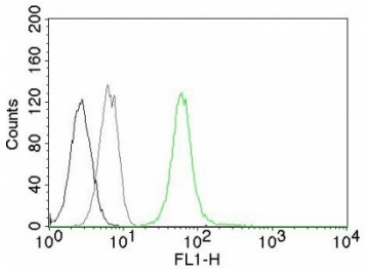
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	VM452
Purity	Protein G affinity chromatography
UniProt	P08670
Localization	Cytoplasmic
Applications	Flow cytometry: 1-2ug/million cells Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Vimentin antibody is available for research use only.



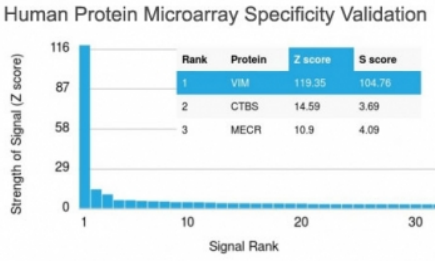
Vimentin Antibody Clone VM452 / VIM Mesenchymal Marker Antibody Raji Cell WB. Western blot analysis of Raji cell lysate using Vimentin Antibody Clone VM452 / VIM Mesenchymal Marker Antibody. A distinct immunoreactive band is detected at approximately 53-58 kDa, consistent with the expected molecular weight of vimentin, supporting specific detection of the endogenous type III intermediate filament protein in Raji cells.



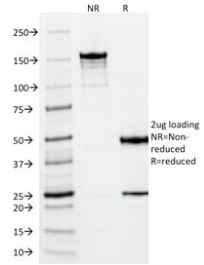
Vimentin Antibody Clone VM452 / VIM Mesenchymal Marker Antibody Human Melanoma IHC. Immunohistochemical staining of FFPE human melanoma tissue using Vimentin Antibody Clone VM452 / VIM Mesenchymal Marker Antibody. Strong cytoplasmic vimentin expression is observed throughout the melanoma cells, consistent with the mesenchymal phenotype and widespread expression of this type III intermediate filament protein in melanocytic tumors. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9, 10 mM Tris with 1 mM EDTA for 10â€“20 minutes, followed by cooling at room temperature for 20 minutes prior to immunostaining.



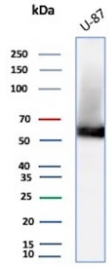
Vimentin Antibody Clone VM452 / VIM Mesenchymal Marker Antibody Jurkat Cell FACS. Flow cytometric analysis of Jurkat cells using Alexa Fluor 488-conjugated Vimentin Antibody Clone VM452 / VIM Mesenchymal Marker Antibody. The green histogram shows a clear rightward shift relative to the isotype control (gray) and unstained cells (black), demonstrating specific detection of endogenous vimentin expression by flow cytometry.



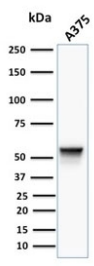
Vimentin Antibody Clone VM452 / VIM Mesenchymal Marker Antibody Protein Microarray Validation. Analysis of the HuProt(TM) human protein microarray containing more than 19,000 full-length human proteins using Vimentin Antibody Clone VM452 / VIM Mesenchymal Marker Antibody demonstrates exceptional target specificity. Clone VM452 produced a strong signal for VIM with a Z-score of 119.35 and an S-score of 104.76, supporting highly selective recognition of vimentin with minimal cross-reactivity. The Z-score reflects the strength of antibody binding relative to the array background, while the S-score represents the specificity of the antibody for its intended target compared with the next highest-ranking proteins.



SDS-PAGE analysis of purified, BSA-free Vimentin antibody (clone VM452) as confirmation of integrity and purity.



Vimentin Antibody Clone VM452 / VIM Mesenchymal Marker Antibody U-87 MG Cell WB. Western blot analysis of U-87 MG cell lysate using Vimentin Antibody Clone VM452 / VIM Mesenchymal Marker Antibody. A distinct immunoreactive band is detected at approximately 53-58 kDa, consistent with the expected molecular weight of vimentin, supporting specific detection of the endogenous type III intermediate filament protein in U-87 MG cells.



Vimentin Antibody Clone VM452 / VIM Mesenchymal Marker Antibody A375 Cell WB. Western blot analysis of A375 cell lysate using Vimentin Antibody Clone VM452 / VIM Mesenchymal Marker Antibody. A distinct immunoreactive band is detected at approximately 53-58 kDa, consistent with the expected molecular weight of vimentin, supporting specific detection of the endogenous type III intermediate filament protein in A375 melanoma cells.

Description

Vimentin (VIM) is a type III intermediate filament protein that forms a cytoplasmic structural network in mesenchymal cells, supporting cellular integrity, migration, and intracellular organization. Vimentin Antibody Clone VM452 is developed for researchers seeking a clone-specific reagent with emphasis on tissue-based validation, making it highly relevant for searches such as VM452 antibody, Vimentin clone VM452 antibody, and VIM clone VM452 antibody. Vimentin is also referred to as Vimentin antibody, VIM antibody, and mesenchymal marker antibody in the literature, helping unify gene, protein, and functional terminology for improved search alignment.

Vimentin is broadly expressed in fibroblasts, endothelial cells, leukocytes, and other mesenchymal-derived cell types, while epithelial cells typically lack expression unless undergoing epithelial-mesenchymal transition or pathological remodeling. This expression profile makes Vimentin one of the most widely used markers in tumor pathology research, particularly for identifying mesenchymal differentiation, stromal components, and invasive tumor phenotypes. Its cytoplasmic filamentous staining pattern is a hallmark feature in immunohistochemistry-based studies of both normal and diseased tissues.

Functionally, Vimentin interacts with actin filaments and microtubules to regulate cell shape, adhesion, and motility. Its dynamic reorganization through phosphorylation supports processes such as mitosis, migration, and cellular stress responses. Vimentin is also involved in wound healing, immune regulation, and developmental transitions, further reinforcing its importance as a multifunctional cytoskeletal protein in both physiological and pathological contexts.

The clone VM452 monoclonal antibody serves as a key differentiator in this product, with clone VM452 referenced in peer-reviewed literature and supported by tissue microarray (TMA) specificity testing across a wide range of normal and cancer tissues. This TMA-based validation approach provides valuable context for tissue-level expression patterns and staining consistency, which is especially important for researchers performing immunohistochemistry and comparative tissue analysis. Incorporating clone VM452 into experimental workflows supports clone-specific reproducibility while leveraging tissue-wide specificity data, offering a well-defined option for detecting Vimentin / VIM expression in studies that prioritize histological context and broad tissue screening.

Explore additional antibodies involved in cytoskeletal organization, cell structure, and intermediate filament biology on our Cell Biology Antibodies page.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the Vimentin Antibody Clone VM452 to be titered up or down for optimal performance.

Immunogen

Recombinant protein was used as the immunogen for the Vimentin Antibody Clone VM452.

Storage

Store the Vimentin antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

VIM antibody, Vimentin intermediate filament antibody, Mesenchymal marker antibody, Type III intermediate filament antibody, Fibroblast marker antibody

References (1)

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