

Antibodies

Anti-Human Vimentin Antibody, Clone 1A7

Mouse monoclonal antibody against human,
mouse, rat vimentin



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Catalog #100-1065

100 µg

Product Description

The 1A7 antibody reacts with human vimentin, a class III intermediate filament that is expressed in mesenchymal cells and mediates several functions, including cell adhesion, signaling, and migration. This structural protein is composed of α -helical regions linked into a coiled-coil protein and confers mechanical resistance in cells. Vimentin filaments have been reported to interact with signaling proteins, such as Cdc42, Rac1, and the 14-3-3 family of proteins, suggesting a role in modulation and regulation of signal transduction processes. Vimentin is also involved in the LARP-6 dependent binding and stabilization of collagen mRNA during the development of tissue fibrosis. Vimentin is regarded as a marker of mesenchymal-derived cells, but it has been implicated in tumor detection, such as in distinguishing between some sarcomas and carcinomas.

Target Antigen Name:	Vimentin
Alternative Names:	VIM, CTRCT30, HEL113
Gene ID:	7431
Species Reactivity:	Human, Mouse, Rat
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	1A7
Isotype:	IgG1, kappa
Immunogen:	Recombinant Protein
Conjugate:	Unconjugated

Applications

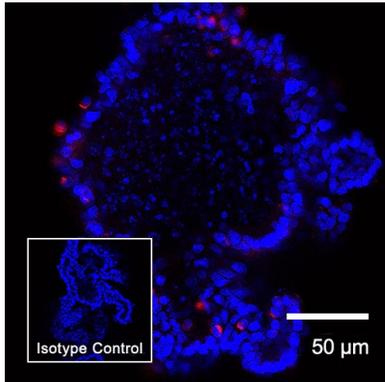
Verified:	ICC/IF, WB
Special Applications:	This antibody clone has been verified for labeling vimentin-positive mesenchymal cells in human intestinal organoids grown using the STEMdiff™ Intestinal Organoid Kit (Catalog #05140).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IHC-P: Immunohistochemistry (paraffin-embedded); IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered saline, pH 7.4, containing 0.02% sodium azide and 50% glycerol
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at -20°C when stored undiluted. Stable until expiry date (EXP) on label.
Directions for Use:	The suggested use of this antibody is: ICC/IF, 2.5 µg/mL; WB, 1:500 - 1:5000. It is recommended that the antibody be titrated for optimal performance for each application.

Data



H9 human intestinal organoids were cultured using STEMdiff™ Intestinal Organoid Kit (Catalog #05140), then fixed and labeled with Anti-Human Vimentin Antibody, Clone 1A7, followed by Goat Anti-Mouse IgG (H+L) Antibody, Polyclonal, iFluor™ 568 (Catalog #100-1080). Nuclei were counter-stained with DAPI (blue). Inset shows cells labeled with Mouse IgG1, kappa Isotype Control Antibody, Clone MOPC-21 (Catalog #60070), followed by Goat Anti-Mouse IgG (H+L) Antibody, Polyclonal, iFluor™ 568 (with DAPI staining).

Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies, or contact us at techsupport@stemcell.com.

References

1. Challa AA & Stefanovic B. (2011) A novel role of vimentin filaments: binding and stabilization of collagen mRNAs. *Mol Cell Biol* 31(18): 3773–89.
2. Paramio JM & Jorcano J L. (2002) Beyond structure: do intermediate filaments modulate cell signalling? *BioEssays* 24(9): 836–44.

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