Mouse Vimentin Monoclonal Antibody | anti-VIM antibody

Vimentin mouse monoclonal Antibody [AFfirm079]

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329977	**Mouse**	**Human, Mouse, Rat, Monkey**	**ELISA, Immunocytochemistry, Immunofluorescence, Western Blot**

PRODUCT SYNONYMS

Vimentin; Monoclonal Antibody; Vimentin mouse monoclonal Antibody [AFfirm079]; CTRCT30; Epididymis luminal protein 113; FLJ36605; HEL113; VIM; VIME_HUMAN; anti-VIM antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human, Mouse, Rat, Monkey
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Number	AFfirm079
Specificity	Vimentin antibody detects endogenous levels of total Vimentin. 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.
Purity/Purification	Affinity-chromatography.
Form/Format	Liquid. Mouse IgG1 in phosphate buffered saline (without Mg2+ and Ca2+), pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-VIM antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	Purified recombinant fragment of human Vimentin expressed in E Coli.
Conjugation	Unconjugated
Fragment	Fab fragment
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. Phosphorylated on tyrosine residues by SRMS.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-densitity lipoprotein (LDL (ox)) possibly implicating the iNOS-S100A8/9 transnitrosylase complex.
Subunit Structure	Homopolymer assembled from elementary dimers. Interacts with LGSN and SYNM. Interacts (via rod region) with PLEC (via CH 1 domain) (By similarity). Interacts with SLC6A4. Interacts with STK33. Interacts with LARP6. Interacts with RAB8B (By similarity). Interacts with TOR1A; the interaction associates TOR1A with the cytoskeleton. Interacts with TOR1AIP1. Interacts with BCAS3. Interacts with DIAPH1. Identified in complexes that contain VIM, EZR, AHNAK, BFSP1, BFSP2, ANK2, PLEC, PRX and spectrin (By similarity). Interacts with EPPK1; interaction is dependent of higher-order structure of intermediate filament. Interacts with the non-receptor tyrosine kinase SRMS; the interaction leads to phosphorylation of VIM. Interacts with NOD2. Interacts (via head region) with CORO1C (By similarity). Interacts with HDGF (isoform 2). (Microbial infection) Interacts with HCV core protein.

Similarity	The central alpha-helical coiled-coil IF rod domain 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.Belongs to the intermediate filament family.
Subcellular Location	Cytoplasm. Cytoplasm>Cytoskeleton. Nucleus matrix.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)
Staining Hela cells by IF/ICC. The samples were fixed with PFA and permeabilized in 0.1% Triton X-100,then blocked in 10% serum for 45 minutes at 25 degree C. Samples were then incubated with primary Ab(BF8006) and rabbit anti-beta tubulin Ab for 1 hour at 37 degree C. An AlexaFluor594 conjugated goat anti-mouse IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-rabbit IgG(H+L) Ab(Green) were used as the secondary antibody.



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WB (Western Blot)
Western blot analysis of extracts from various samples, using Vimentin mouse monoclonal Antibody.Lane 1: B16F10 cells treated with blocking peptide;Lane 2: B16F10 cells;Lane 3: Rat lung;Lane 4: HepG2 cells

ADDITIONAL INFORMATION

Related Product Information for anti-VIM antibody	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. Vimentin, also know as VIM. It is the major subunit protein of the intermediate filaments of mesenchymal cells. It is believed to be involved with the intracellular transport of proteins between the nucleus and plasma membrane. Vimentin has been implicated to be involved in the rate of steroid synthesis via its role as a storage network for steroidogenic cholesterol containing lipid droplets.

NCBI AND UNIPROT INFORMATION

NCBI GI #	62414289
NCBI GeneID	7431
NCBI Accession #	NP_003371.2
NCBI GenBank Nucleotide #	NM_003380.3
UniProt Accession #	P08670; Q15867; Q15868; Q15869; Q548L2; Q6LER9; Q8N850; Q96ML2; Q9NTM3; B0YJC2; D3DRU4
Molecular Weight	53,652 Da
NCBI Official Full Name	vimentin
NCBI Official Synonym Full Names	vimentin
NCBI Official Symbol	VIM
NCBI Protein Information	vimentin
UniProt Protein Name	Vimentin

UniProt Gene Name	**VIM**
UniProt Entry Name	VIME_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: https://stage.aaabiotech.com/monoclonal/vimentin-antibody-clone-affirm079-peptide-elisa-immunocytochemistry-immunofluorescence-western-blot-elisa/329977