ARG63119
anti-Vimentin antibody [VI-RE/1]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [VI-RE/1] recognizes Vimentin
Tested Reactivity	Hu
Species Does Not React With	Ms, Pig
Tested Application	ELISA, FACS, ICC/IF, IHC-P, WB
Specificity	The clone VI-RE/1 reacts with human vimentin, a 57 kDa intermediate filament protein expressed on a wide variety of mesenchymal and mesodermal cell types.
Host	Mouse
Clonality	Monoclonal
Clone	VI-RE/1
Isotype	IgG1
Target Name	Vimentin
Species	Human
Immunogen	Bacterially expressed full-length human vimentin
Conjugation	Un-conjugated
Alternate Names	Vimentin; CTRCT30; HEL113

Application Instructions

Application table

Application	Dilution
ELISA	Assay-dependent
FACS	1 - 4 µg/ml
ICC/IF	5 - 10 µg/ml
IHC-P	1:400
WB	1 - 2 µg/ml

Application Note	WB: Incubation: Overnight at 4°C. WB: Sample preparation: Resuspend approx. 50 mil. cells in 1 ml cold Lysis buffer (1% laurylmaltoside in 20 mM Tris/Cl, 100 mM NaCl pH 8.2, 50 mM NaF including Protease inhibitor Cocktail). Incubate 60 min on ice. Centrifuge to remove cell debris. Mix lysate with reducing Laemmli SDS-PAGE sample buffer. Boil for 3 min in water bath. Application note: Reducing condition. SDS-PAGE (10% separating gel). * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	U87 (positive control); Raji (negative control); MOLT-4 (low expression)
Observed Size	~ 55 kDa

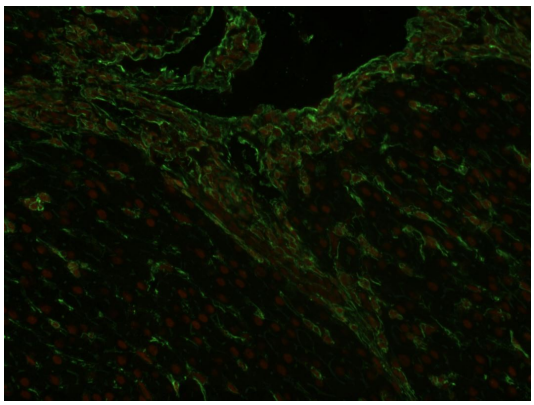
Properties

Form	Liquid
Purification	Purified from hybridoma culture supernatant by protein-A affinity chromatography.
Purity	> 95% (by SDS-PAGE)
Buffer	PBS (pH 7.4) and 15 mM Sodium azide
Preservative	15 mM Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

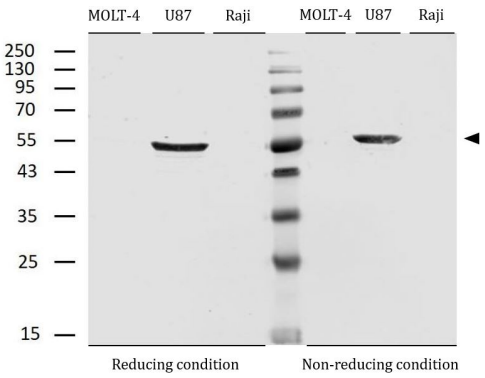
Database links	GeneID: 7431 Human Swiss-port # P08670 Human
Gene Symbol	VIM
Gene Full Name	vimentin
Background	Vimentin is a type III intermediate filament protein. Intermediate filaments, along with microtubules and actin microfilaments, make up the cytoskeleton. The encoded protein is responsible for maintaining cell shape and integrity of the cytoplasm, and stabilizing cytoskeletal interactions. This protein is involved in neuritogenesis and cholesterol transport and functions as an organizer of a number of other critical proteins involved in cell attachment, migration, and signaling. Bacterial and viral pathogens have been shown to attach to this protein on the host cell surface. Mutations in this gene are associated with congenital cataracts in human patients. [provided by RefSeq, Aug 2017]
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. Involved with LARP6 in the stabilization of type I collagen mRNAs for CO1A1 and CO1A2. [UniProt]
Highlight	Related products: Vimentin antibodies; Vimentin Duos / Panels; Anti-Mouse IgG secondary antibodies; Related news: New antibody panels for Myofibroblasts and CAFs New antibody panels and duos for Tumor immune microenvironment Anti-SerpinB9 therapy, a new strategy for cancer therapy
Research Area	Cancer antibody; Controls and Markers antibody; Developmental Biology antibody; Neuroscience antibody; Signaling Transduction antibody; Cancer-associated fibroblast antibody; CAF Marker antibody; EMT Study antibody; Mesenchymal Markers antibody; Fibroblast Marker antibody; Muller Cell Marker antibody; Sarcoma Marker antibody
Calculated Mw	54 kDa
PTM	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. 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.

Images



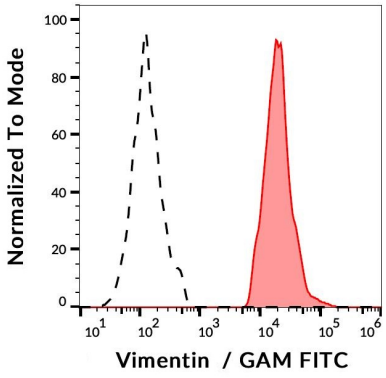
ARG63119 anti-Vimentin antibody [VI-RE/1] IHC-P image

Immunohistochemistry: Paraffin-embedded Human liver tissue stained with ARG63119 anti-Vimentin antibody [VI-RE/1] (green) at 1:400 dilution. Cell nuclei stained with PI (orange) at 1 µg/ml dilution.



ARG63119 anti-Vimentin antibody [VI-RE/1] WB image

Western blot: MOLT-4 (low expression), U87 (positive) and Raji (negative control) under reducing and non-reducing conditions. The plots were stained with ARG63119 anti-Vimentin antibody [VI-RE/1] at 2 µg/ml dilution.



ARG63119 anti-Vimentin antibody [VI-RE/1] FACS image

Flow Cytometry: ESS-1 cells (red) and Human lymphocytes (black-dashed, negative control) stained with ARG63119 anti-Vimentin antibody [VI-RE/1], followed by incubation with FITC labelled Goat anti-Mouse secondary antibody.