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Product datasheet for TA336856

Vimentin (VIM) Mouse Monoclonal Antibody [Clone ID: 2D1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	2D1
Applications:	IF, WB
Recommended Dilution:	WB: 1:5000-1:10000, IF: 1:500-1:1000
Reactivity:	Human, Mouse, Rat, Mammalian
Host:	Mouse
Isotype:	IgG2a, kappa
Clonality:	Monoclonal
Immunogen:	Recombinant human Vimentin expressed in and purified from E. coli. [UniProt# P08670]
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Protein G purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	50 kDa
Gene Name:	vimentin
Database Link:	NP_003371 Entrez Gene 22352 MouseEntrez Gene 81818 RatEntrez Gene 7431 Human P08670

View online »

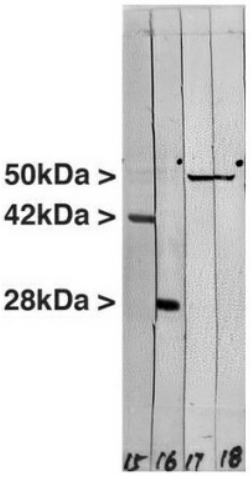
Background: Vimentin (VIM) is a widely expressed/highly conserved member of type III intermediate filaments (IF) family proteins found in various non-epithelial cells, especially in mesenchymal cells. It exists as homopolymer assembled from elementary dimers and interacts with HCV core protein, LGSN, SYNM, PLEC, SLC6A4, STK33, LARP6 and RAB8B, and its interaction with LARP6 plays a key role in the stabilization of type I collagen mRNAs, CO1A1/CO1A2. VIM's dynamic structural changes and spatial re-organization in response to extracellular stimuli facilitate coordination of various signal transduction pathways. Filament disassembly during cell division is promoted by VIM phosphorylation at Ser-55 as well as by nestin. VIM is phosphorylated by STK33, CDK5 and PKN1; and PKN1 mediated phosphorylation inhibits filaments formation, whereas, CDK5 executes its phosphorylation at Ser-56 during neutrophil secretion in cytoplasm. VIM expression is predominant during embryonic development, while in adults, its expression is limited to connective tissue mesenchymal cells, CNS and muscles. VIM has emerged as canonical marker of EMT (epithelial to mesenchymal transition- a process that renders the epithelial cells to dramatically alter their shape and acquire increased motility) which is characterized by the expression of VIM IFs in epithelial cells that normally express only keratin IFs and enhanced VIM expression has been reported in various cancers where it plays as a driving factor for metastasis.

Synonyms: CTRCT30; HEL113

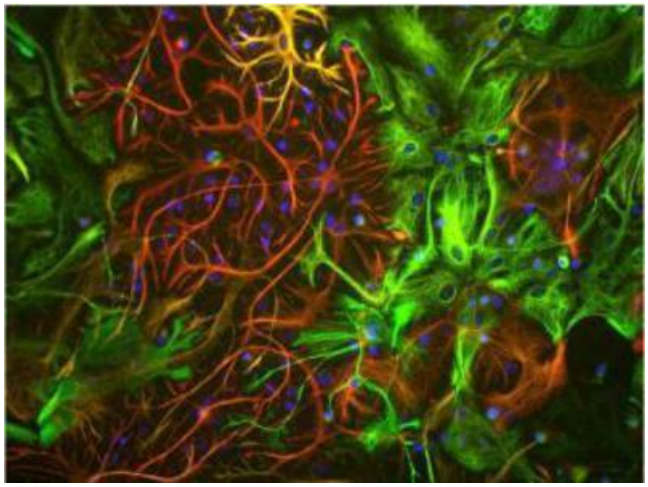
Note: This Vimentin (2D1) antibody is useful for Immunocytochemistry/Immunofluorescence and Western blot, where a band can be seen at approximately 50 kDa.

Protein Families: ES Cell Differentiation/IPS

Product images:



Western Blot: Vimentin Antibody (2D1) TA336856 - Western blot of crude extract HeLa. Lane 18 was probed with TA336856 antibody. Note the strong clean band at the expected molecular weight of 50kDa. Lane 17 was probed with a monoclonal antibody to Viment



Immunocytochemistry/Immunofluorescence: Vimentin Antibody (2D1) TA336856 - View of mixed neuron/glial cultures stained with TA336856 (green) and the GFAP rabbit polyclonal (NB300-141, red). Vimentin is expressed alone in fibroblastic and endothelial cel