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Datasheet for 200-301-E54

Vimentin Antibody

Overview

Description:	Anti-Vimentin (MOUSE) Monoclonal Antibody - 200-301-E54
Item No.:	200-301-E54
Size:	100 µL
Applications:	IHC, WB
Reactivity:	Human, Mouse, Rat, Bovine
Host Species:	Mouse

Product Details

Background:	Vimentin is the major protein subunit of the 10nm or intermediate filaments (IFs) found in many kinds of mesenchymal and epithelial cells as well as developing neuronal and astrocytic precursor cells in the CNS. Vimentin is thought to be critically involved in lymphocyte adhesion and transmigration. Copolymers are frequently formed between vimentin and other IFs, such as GFAP (in many kinds of astrocytes), desmin (in muscle cells) and neurofilament proteins (in developing neurons). Antibodies to vimentin are useful in studies of stem cells and generally to reveal the filamentous cytoskeleton. Recent studies suggest that vimentin affects prostate cancer cells motility and invasiveness. Vimentin Antibody is ideal for researchers interested in neuroscience research.
Synonyms:	Vim, Vimentin Antibody
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	2D1
Format:	IgG2a

Target Details

Gene Name:	VIM
Reactivity:	Human, Mouse, Rat, Bovine
Immunogen Type:	Recombinant Protein

Immunogen:	Anti-Vimentin Antibody was produced in mice by repeated immunizations with a recombinant human vimentin purified from E. coli.
Purity/Specificity:	Anti-Vimentin Antibody was purified from tissue culture supernatant by protein G chromatography.
Relevant Links:	• UniProtKB - P08670 • GeneID - 7431 • NCBI - NP_003371.2

Application Details

Tested Applications:	IHC, WB
Application Note:	Anti-Vimentin Antibody is tested for Western Blot, immunocytochemistry, and immunohistochemistry, and it is specific for the ~50 kDa vimentin protein. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000
IF:	1:500
IHC:	1:500-1:1000
WB:	1:1000

Formulation

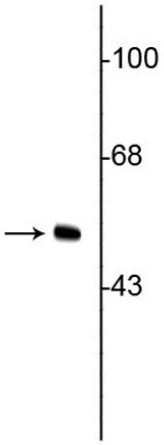
Physical State:	Liquid (sterile filtered)
Concentration:	titrated reagent
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

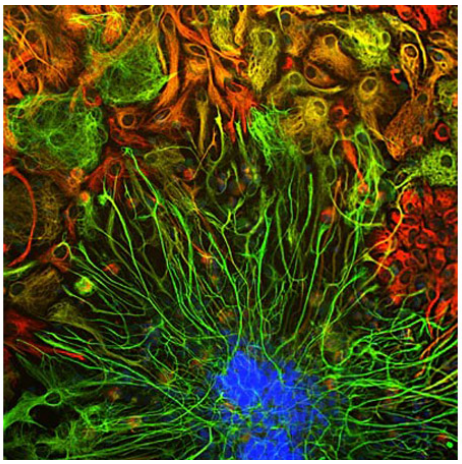
Shipping Condition:	Wet Ice

Storage Condition:	Store vial at -20° C prior to opening in undiluted aliquots. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
Western blot of anti-Vimentin.
HeLa cell lysate showing specific immunolabeling of the ~50 kDa vimentin protein.



Immunofluorescence Microscopy
Immunostaining of E20 rat cortical neuron/glial cell culture stained with anti-vimentin (p/n 200-301-E54, red, 1:2000) and anti-GFAP antibody (green, 1:5000). The blue is DAPI staining nuclear DNA. Vimentin is expressed alone in fibroblastic and developing cells and appear red. The astrocytes that appear red express only GFAP, while the golden yellow and yellow astrocytes express GFAP and Vimentin.

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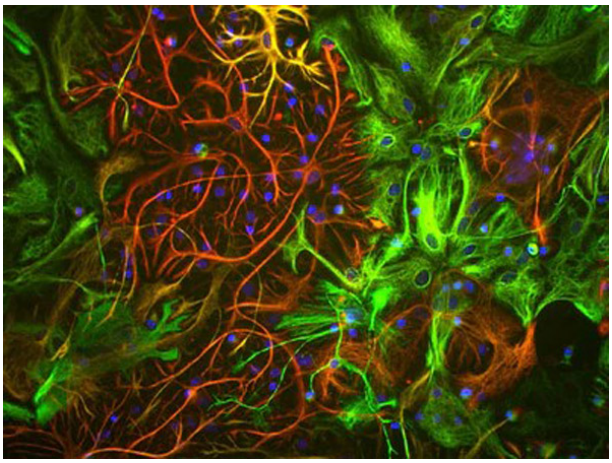

Immunofluorescence Microscopy
Mixed neuron/glial cultures stained with anti-vimentin (green, 1:500) and rabbit anti-GFAP antibody (red, 1:1000). The blue stains nuclear DNA. Vimentin is expressed alone in fibroblastic and endothelial cells, which are the flattened cells in the middle of the image which appear green. Astrocytes may express primarily GFAP, or GFAP and vimentin, and so appear red (GFAP only) or golden yellow (GFAP and Vimentin).

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