abcam

Product datasheet

Anti-Vimentin antibody [VI-01] (Dyomics® 547) ab38873

1 Image

Overview

Product name	Anti-Vimentin antibody [VI-01] (Dyomics® 547)
Description	Mouse monoclonal [VI-01] to Vimentin (Dyomics® 547)
Conjugation	Dyomics® 547
Specificity	This antibody is specific for Vimentin. Cross-reactivity was found with smooth muscle desmin.
Tested applications	**Suitable for:** ICC
Species reactivity	Reacts with all species.
Immunogen	Pellet of pig brain cold stable proteins after depolymerization of microtubules.
General notes	The conjugate is purified by size chromatography and adjusted for direct use.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	Preservative: 15mM Sodium Azide Constituents: 0.2% (w/v) BSA, PBS
Purity	Purified IgM
Clonality	Monoclonal
Clone number	VI-01
Isotype	IgM

Applications

Our Abpromise guarantee covers the use of **ab38873** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

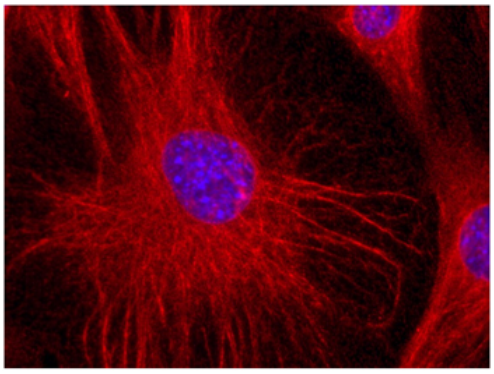
Application	Abreviews	Notes
ICC		

Application notes	ICC on fixed and permeabilized cells: 1/50. Not yet tested in other applications. Optimal dilutions/concentrations should be determined by the end user.

Target

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.
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.
Involvement in disease	Cataract 30
Sequence similarities	Belongs to the intermediate filament family.
Domain	The central alpha-helical coiled-coil rod region 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.
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. 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.
Cellular localization	Cytoplasm.
Form	Vimentin is found in connective tissue and in the cytoskeleton.

Images



Immunocytochemistry - Anti-Vimentin antibody [VI-01] (Dyomics® 547) (ab38873)

Immunofluorescence staining of 3T3 mouse embryonal fibroblast cell line with ab38873 anti-Vimentin (VI-01) Dyomics® 547. Nuclei are stained with DAPI (blue).

Cells were fixed with methanol for 10 minutes at -20°C.

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