

## Product datasheet

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# ARG58271 anti-Vimentin phospho (Ser56) antibody

Package: 50 μl Store at: -20°C

#### **Summary**

Product Description Rabbit Polyclonal antibody recognizes Vimentin phospho (Ser56)

Tested Reactivity Hu, Rat

Tested Application WB

Host Rabbit

**Clonality** Polyclonal

Isotype IgG

Target Name Vimentin
Species Human

Immunogen Phospho specific peptide around Ser56 of Human Vimentin (NP\_003371.2).

Conjugation Un-conjugated

Alternate Names Vimentin; CTRCT30; HEL113

#### **Application Instructions**

| Application table | Application                                                                                            | Dilution       |
|-------------------|--------------------------------------------------------------------------------------------------------|----------------|
|                   | WB                                                                                                     | 1:500 - 1:2000 |
| Application Nata  | * The dilutions indicate assessment and starting dilutions and the embined dilutions or consentrations |                |

Application Note \* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations

should be determined by the scientist.

Positive Control HeLa + Paclitaxel

Observed Size 57 kDa

#### **Properties**

Form Liquid

Purification Affinity purified.

Buffer PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.

Preservative 0.02% Sodium azide

Stabilizer 50% Glycerol

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. 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

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:

<u>Vimentin antibodies</u>; <u>Vimentin Duos / Panels</u>; <u>Anti-Rabbit IgG secondary antibodies</u>;

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. [UniProt]

Cellular Localization

Cytoplasm. [UniProt]



HeLa + Paclitaxel

### ARG58271 anti-Vimentin phospho (Ser56) antibody WB image

Western blot:  $25~\mu g$  of HeLa cells were treated by Paclitaxel (100 nM/ml) for 20 hours. The blot was stained with ARG58271 anti-Vimentin phospho (Ser56) antibody at 1:3000 dilution.