



Rabbit Anti-Phospho-Vimentin (Ser56) antibody

SL3471R

Product Name:	Phospho-Vimentin (Ser56)
Chinese Name:	磷酸化波形蛋白抗体
Alias:	Vimentin (phospho S56); p-Vimentin (phospho S56); FLJ36605; OTTHUMP00000019224; VIM; VIME_HUMAN; Vimentin.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Sheep,Guinea Pig,
Applications:	WB=1:500-2000ELISA=1:500-1000Flow-Cyt=0.2µg /Test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	51kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human Vimentin around the phosphorylation site of Ser56:S(p-S)PG
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Vimentin is the major subunit protein of the intermediate filaments of mesenchymal cells. It is believed to be involved with the intracellular transport of proteins between the nucleus and plasma membrane. Vimentin has been implicated to be involved in the rate of steroid synthesis via its role as a storage network for steroidogenic cholesterol containing lipid droplets. Vimentin phosphorylation by a protein kinase causes the

breakdown of intermediate filaments and activation of an ATP and myosin light chain-dependent contractile event. This results in cytoskeletal changes that facilitate the interaction of the lipid droplets within mitochondria, and subsequent transport of cholesterol to the organelles leading to an increase in steroid synthesis.

Immunohistochemical staining for Vimentin is characteristic of sarcomas (of neural, muscle and fibroblast origin) compared with carcinomas which are generally negative. Melanomas, lymphomas and vascular tumors may all stain for Vimentin. Vimentin antibodies are thus of value in the differential diagnosis of undifferentiated neoplasms and malignant tumors. They are generally used with a panel of other antibodies including those recognizing cytokeratins, lymphoid markers, S100, desmin and neurofilaments.

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.

Subunit:

Homopolymer. Interacts with HCV core protein. Interacts with LGSN and SYNM. Interacts (via rod region) with PLEC (via CH 1 domain). Interacts with SLC6A4. Interacts with STK33. Interacts with LARP6. Interacts with RAB8B.

Subcellular Location:

Cytoplasm.

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.

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.

Similarity:

Belongs to the intermediate filament family.

SWISS:

P08670

Gene ID:
7431

Database links:

[Entrez Gene: 7431](#)Human

[Entrez Gene: 22352](#)Mouse

[Entrez Gene: 81818](#)Rat

[Omim: 193060](#)Human

[SwissProt: P08670](#)Human

[SwissProt: P20152](#)Mouse

[SwissProt: P31000](#)Rat

[Unigene: 455493](#)Human

[Unigene: 691131](#)Human

[Unigene: 268000](#)Mouse

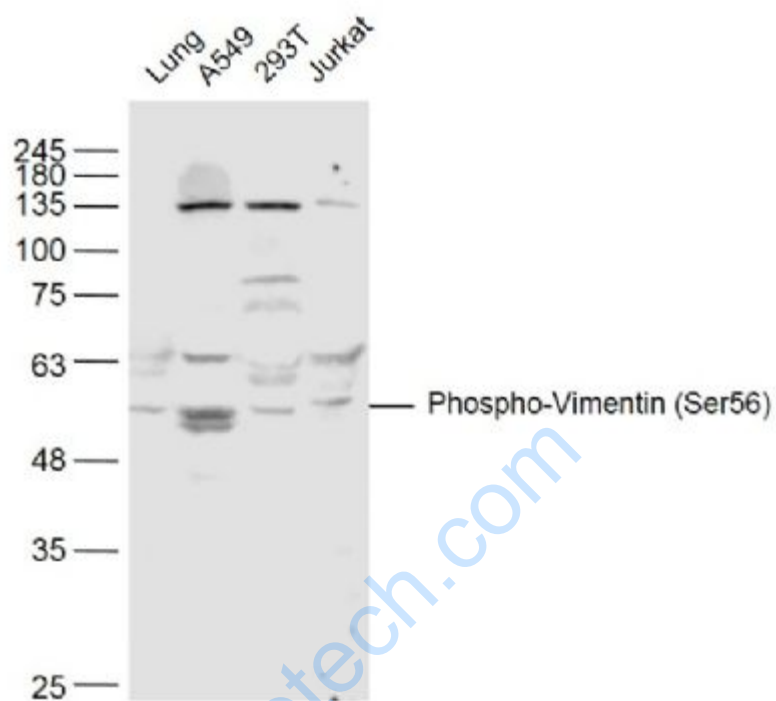
[Unigene: 2710](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Vimentin—

波形蛋白。是五种主要的中间丝之一，存在于各种正常和病理性间质来源的组织，如纤维母细胞、endothelial cells、lymphocyte等正常细胞和肉瘤、淋巴瘤、黑色素瘤等Tumour。波形蛋白是负责维持Cytoskeleton完整性的蛋白之一。



Picture:

Sample:

Lung (Mouse) Lysate at 40 ug

A549(Human) Cell Lysate at 40 ug

293T(Human) Cell Lysate at 40 ug

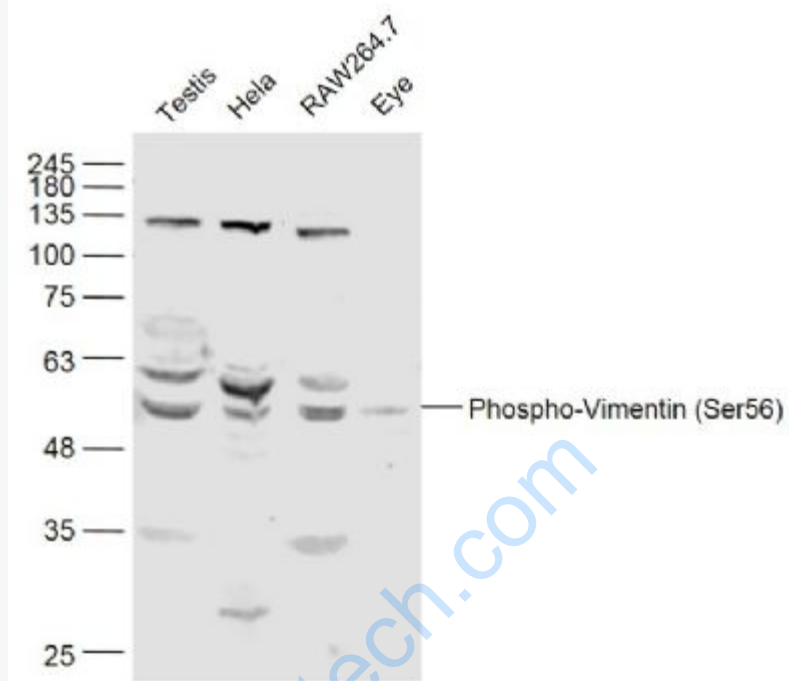
Jurkat(Human) Cell Lysate at 40 ug

Primary: Anti- Phospho-Vimentin (Ser56) (SL3471R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 51 kD

Observed band size: 51 kD



Sample:

Testis (Mouse) Lysate at 40 ug

HeLa(Human) Cell Lysate at 40 ug

RAW264.7(Mouse) Cell Lysate at 40 ug

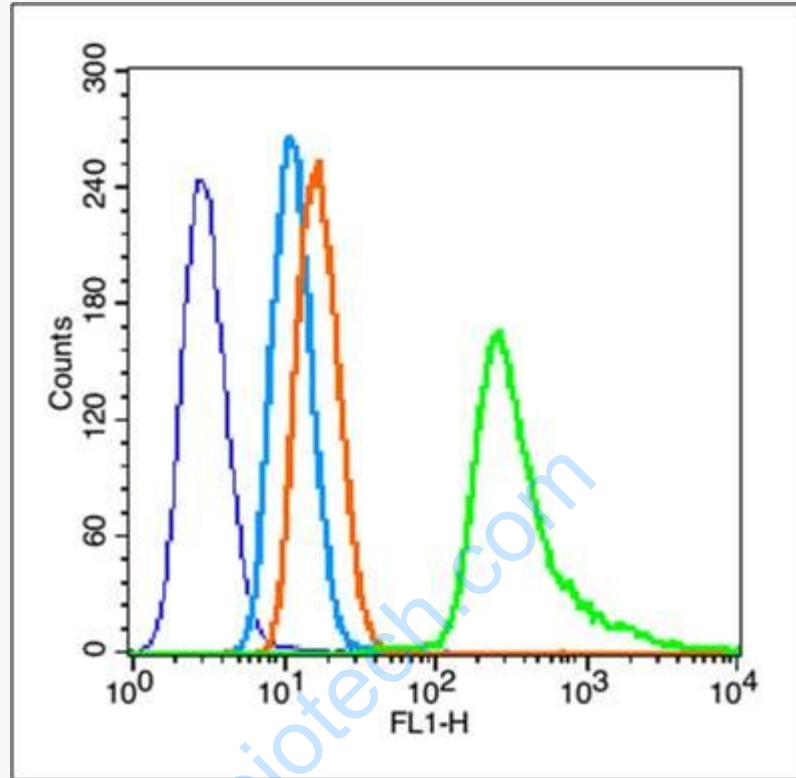
Eye (Mouse) Lysate at 40 ug

Primary: Anti- Phospho-Vimentin (Ser56) (SL3471R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 51 kD

Observed band size: 51 kD



Blank control (blue line): HeLa (fixed with 80% methanol (5 min at -20°C) and then permeabilized with 0.1% PBS-Tween for 20 min at room temperature).

Primary Antibody (green line): Rabbit Anti- Phospho-Vimentin (Ser56) antibody (SL3471R), Dilution: 0.2µg /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC, Dilution: 1µg /test.