SunLong Biotech Co.,LTD
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[Marker Primary Antibody]

Rabbit Anti-Phospho-Vimentin (Ser56)/HRP Conjugated antibody

Catalog Number: SL3471R-HRP

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-Phospho-Vimentin (Ser56)/HRP
Immunogen:	KLH conjugated Synthesised phosphopeptide derived from human Vimentin around the phosphorylation site of Ser56
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
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 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse,Rat
Background:	background: 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.

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

	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, somev 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. **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

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	Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. Vimentin—Vimentin. It is one of the five major intermediate filaments, present in various normal and pathological tissues of mesenchymal origin, such as normal cells including fibroblasts, endothelial cells, lymphocytes, and Tumours including sarcoma, lymphoma, melanoma. Vimentin is one of the proteins responsible for maintaining Cytoskeleton integrity.