SunLong Biotech Co.,LTD
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Rabbit Anti-RAB5A antibody

SLM-52451R

Product Name	RAB5A
Chinese Name	ras 癌基因家族 Rab5 蛋白 Recombinant rabbit monoclonal anti
Alias	RAB5; RAB 5; RAB 5A; RAB5A member RAS oncogene family; RAB5A_HUMAN; RAS associated protein RAB5A; Ras related protein Rab 5A; Ras-related protein Rab-5A.
Research Area	Cell biology Neurobiology Signal transduction Transporter
Immunogen Species	Rabbit
Clonality	Monoclonal
React Species	Human,Mouse,Rat
Applications	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ICC/IF=1:50-200（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	22kDa
Cellular localization	cytoplasmic The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human Rab5
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed

Rab5-related subfamily. This subfamily includes Rab5 and Rab22 of mammals, Ypt51/Ypt52/Ypt53 of yeast, and RabF of plants. The members of this subfamily are involved in endocytosis and endocytic-sorting pathways. In mammals, Rab5 GTPases localize to early endosomes and regulate fusion of clathrin-coated vesicles to early endosomes and fusion between early endosomes. In yeast, Ypt51p family members similarly regulate membrane trafficking through prevacuolar compartments. GTPase activating proteins (GAPs) interact with GTP-bound Rab and accelerate the hydrolysis of GTP to GDP. Guanine nucleotide exchange factors (GEFs) interact with GDP-bound Rabs to promote the formation of the GTP-bound state. Rabs are further regulated by guanine nucleotide dissociation inhibitors (GDIs), which facilitate Rab recycling by masking C-terminal lipid binding and promoting cytosolic localization. Most Rab GTPases contain a lipid modification site at the C-terminus, with sequence motifs CC, CXC, or CCX. Lipid binding is essential for membrane attachment, a key feature of most Rab proteins. Due to the presence of truncated sequences in this CD, the lipid modification site is not available for annotation.

Function:
Binds EEA1. Interacts with RIN1 and GAPVD1, which regulate its pathway, probably by acting as a GEF. Interacts with ALS2CL, RABEP1, SUN2, ZFYVE20 and RUFY1. Interacts with SGSM1 and SGSM3. Interacts with PIK3CB.

Product Detail

Subcellular Location:
Cell membrane; Lipid-anchor; Cytoplasmic side. Early endosome membrane; Lipid-anchor. Melanosome.

Similarity:
Belongs to the small GTPase superfamily. Rab family.

SWISS:
P20339

Gene ID:
5868

Database links:

Entrez Gene: 5868 Human

Entrez Gene: 271457 Mouse

Entrez Gene: 64633 Rat

SwissProt: P20339 Human

SwissProt: Q9CQD1 Mouse

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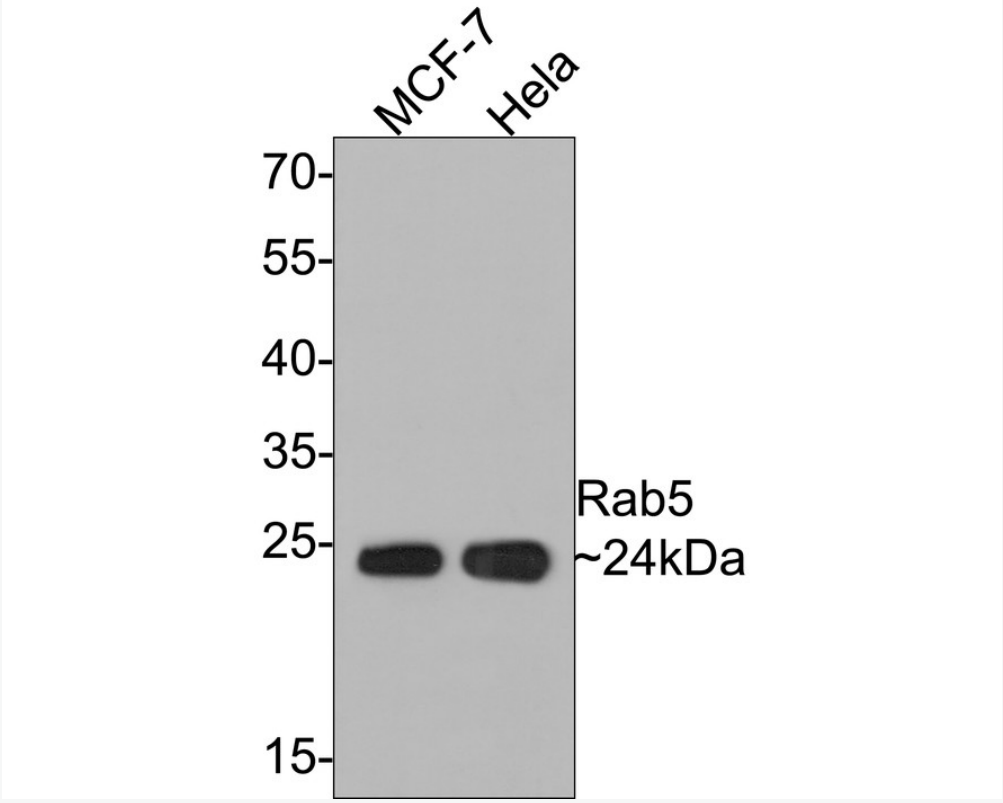
Product Picture



Western blot analysis of Rab5 on different lysates with Rabbit anti-Rab5 antibody (SLM-52451R) at 1/1,000 dilution.

Lane 1: MCF-7 cell lysate

Lane 2: Hela cell lysate

Lysates/proteins at 10 µg/Lane.

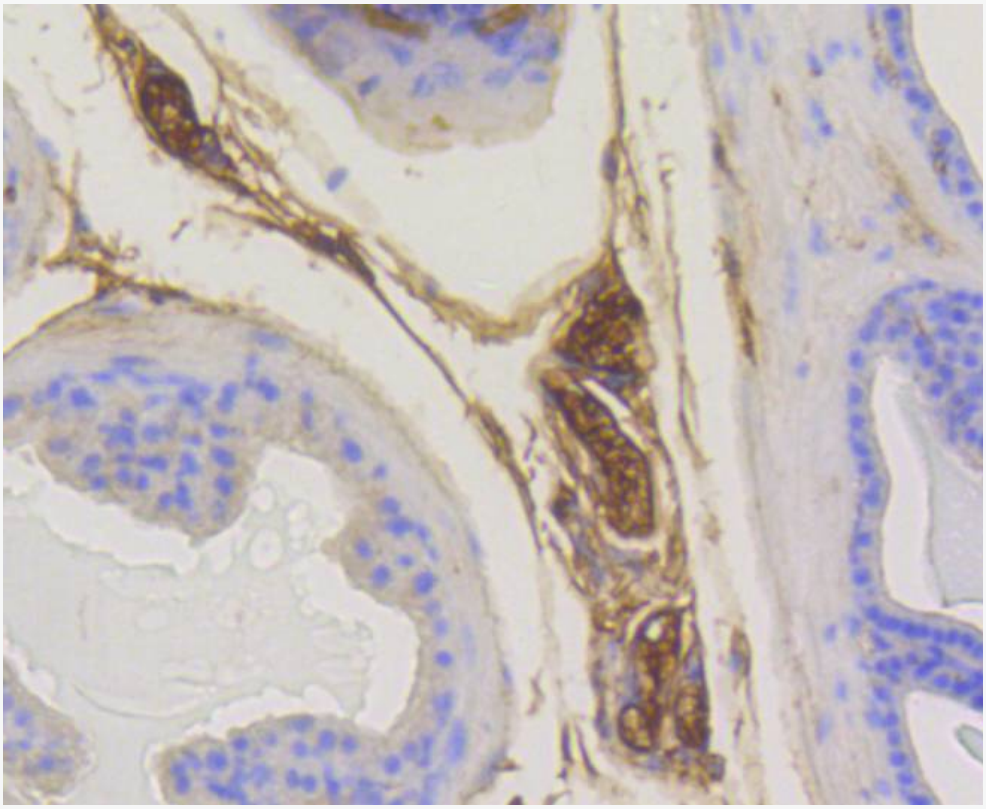
Predicted band size: 24 kDa

Observed band size: 24 kDa

Exposure time: 1 minute;

12% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (SLM-52451R) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.



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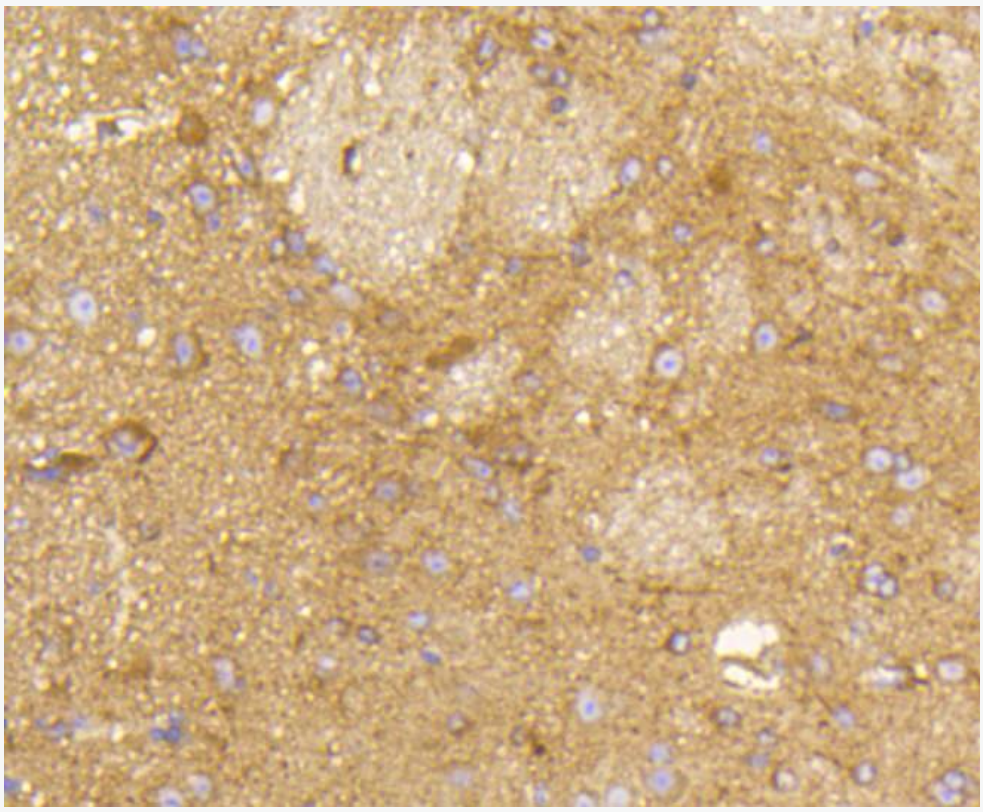
Immunohistochemical analysis of paraffin-embedded mouse prostate tissue with Rabbit anti-Rab5 antibody (SLM-52451R) at 1/200 dilution. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH2O and PBS, and then probed with the primary antibody (SLM-52451R) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



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Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-Rab5 antibody (SLM-52451R) at 1/50 dilution. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH2O and PBS, and then probed with the primary antibody (SLM-52451R) at 1/50 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.