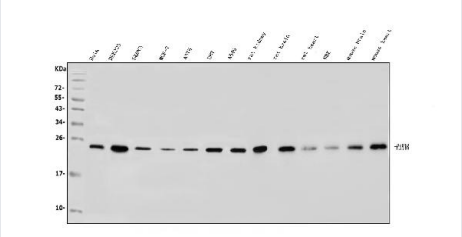
RAB1B Antibody – Rabbit Polyclonal

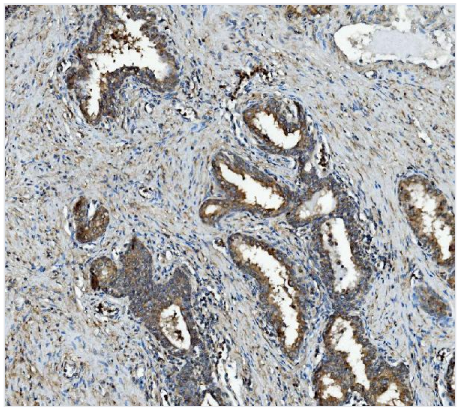
PRODUCT OVERVIEW

Product Name	RAB1B, Polyclonal Antibody
Full Product Name	Anti-RAB1B Antibody
Product Gene Name	anti-RAB1B antibody
Product Synonym Names	Rab1b; Ras-related protein Rab-1B; RAB1B, member RAS oncogene family
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.005mg NaN3.
Purity/Purification	Immunogen affinity purified.
Specificity	Rabbit IgG polyclonal antibody for RAB1B detection.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.
Molecular Weight	22,171 Da
OMIM	612565
3D Structure	ModBase 3D Structure for Q9H0U4
Immunogen	A synthetic peptide corresponding to a sequence of human RAB1B (AAEIKKRMGPGAASGGERPNLKIDSTPVKPA).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems||Lab recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (MBS176460) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (MBS176453) for IHC(P) and ICC.
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-RAB1B antibody	Western Blot (WB), Immunohistochemistry-Paraffin (IHC-P), Immunocytochemistry (ICC), Immunofluorescence (IF), Flow Cytometry (FC/FACS/FCM)
Application Notes for anti-RAB1B antibody	WB: 0.25-0.5ug/ml|Human, Mouse, Rat| IHC-P: 2-5ug/ml|Human| ICC/IF: 5ug/ml|Human| FC/FACS/FCM: 1-3ug/1x106 cells|Human, Mouse|
Related Product Information for anti-RAB1B antibody	Ras-related protein Rab-1B is a protein that in humans is encoded by the RAB1B gene. Members of the RAB protein family, such as RAB1B, are low molecular mass monomeric GTPases localized on the cytoplasmic surfaces of distinct membrane-bound organelles. RAB1B functions in the early secretory pathway and is essential for vesicle transport between the endoplasmic reticulum (ER) and Golgi.
Product References and Citations for anti-RAB1B antibody	1. Alvarez, C., Garcia-Mata, R., Brandon, E., Sztul, E. COPI recruitment is modulated by a Rab1b-dependent mechanism. Molec. Biol. Cell 14: 2116-2127, 2003. 2. Chen, D., Guo, J., Gahl, W. A. RAB GTPases expressed in human melanoma cells. Biochim. Biophys. Acta 1355: 1-6, 1997. 3. Hartz, P. A. Personal Communication. Baltimore, Md. 1/29/2009.

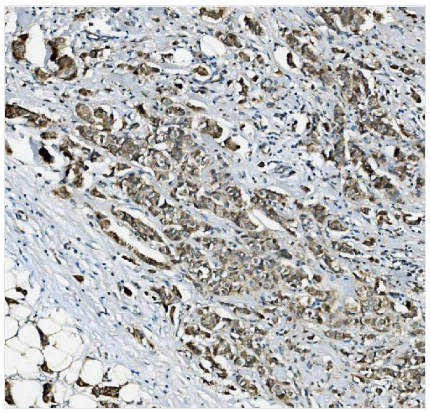
Other Notes	Small volumes of anti-RAB1B antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for RAB1B purchase	MBS1753666 is an antibody targeting RAB1B. Reactive in Human, Mouse, Rat. Host: Rabbit.



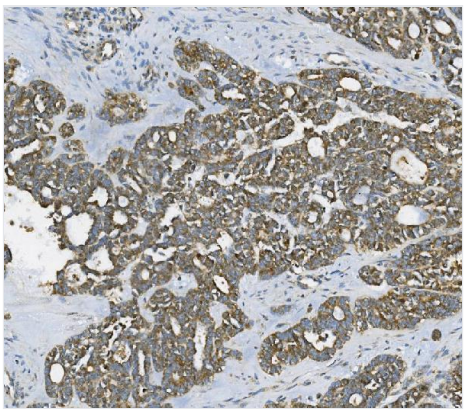
Western Blot (WB) of anti-RAB1B antibody
Figure 1. Western blot analysis of RAB1B using anti-RAB1B antibody (MBS1753666).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: human HELA whole cell lysatesLane 2: human HEK293 whole cell lysatesLane 3: human SKOV3 whole cell lysatesLane 4: human MCF-7 whole cell lysatesLane 5: human A375 whole cell lysatesLane 6: human U87 whole cell lysatesLane 7: human A549 whole cell lysaetsLane 8: rat kidney tissue lysatesLane 9: rat brain tissue lysatesLane 10: rat heart tissue lysatesLane 11: rat NRK whole cell lysatesLane 12: mouse brain tissue lysatesLane 13: mouse heart tissue lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with rabbit anti-RAB1B antigen affinity purified polyclonal antibody (Catalog # MBS1753666) at 0. 5 ?g/mL overnight at 4 degree C, then washed with TBS-0. 1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # MBS176460) with Tanon 5200 system. A specific band was detected for RAB1B at approximately 24KD. The expected band size for RAB1B is at 24KD.



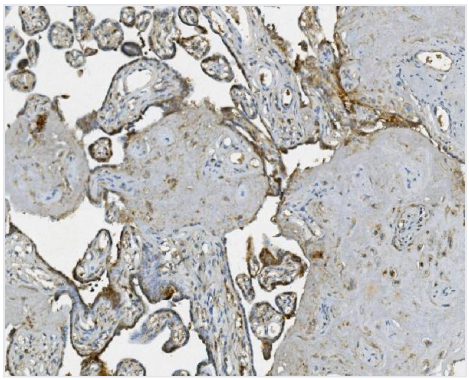
Immunohistochemistry (IHC) of anti-RAB1B antibody
Figure 2. IHC analysis of RAB1B using anti-RAB1B antibody (MBS1753666).RAB1B was detected in paraffin-embedded section of human prostate cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2?g/ml rabbit anti-RAB1B Antibody (MBS1753666) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # MBS176451) with DAB as the chromogen.



Immunohistochemistry (IHC) of anti-RAB1B antibody
Figure 3. IHC analysis of RAB1B using anti-RAB1B antibody (MBS1753666).RAB1B was detected in paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2?g/ml rabbit anti-RAB1B Antibody (MBS1753666) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # MBS176451) with DAB as the chromogen.

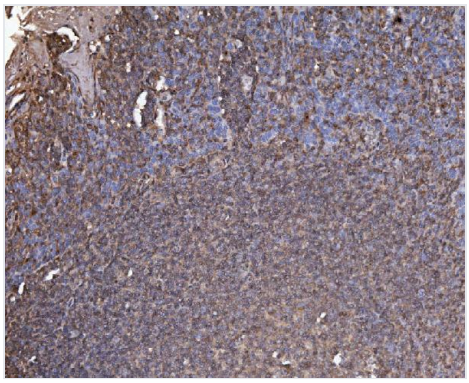


Immunohistochemistry (IHC) of anti-RAB1B antibody
Figure 4. IHC analysis of RAB1B using anti-RAB1B antibody (MBS1753666).RAB1B was detected in paraffin-embedded section of human ovarian cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2?g/ml rabbit anti-RAB1B Antibody (MBS1753666) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # MBS176451) with DAB as the chromogen.



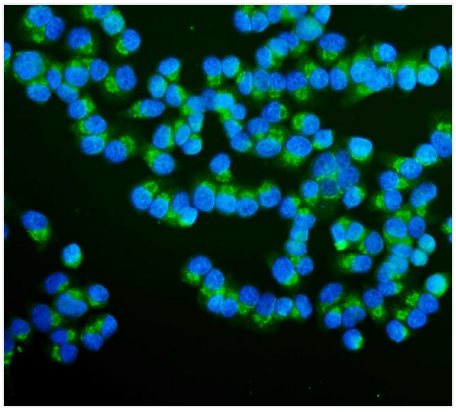
Immunohistochemistry (IHC) of anti-RAB1B antibody

Figure 5. IHC analysis of RAB1B using anti-RAB1B antibody (MBS1753666).RAB1B was detected in paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2? g/ml rabbit anti-RAB1B Antibody (MBS1753666) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # MBS176451) with DAB as the chromogen.



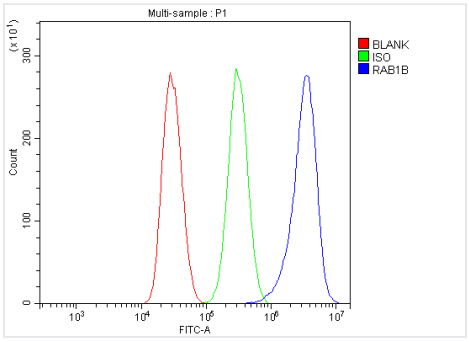
Immunohistochemistry (IHC) of anti-RAB1B antibody

Figure 6. IHC analysis of RAB1B using anti-RAB1B antibody (MBS1753666).RAB1B was detected in paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2? g/ml rabbit anti-RAB1B Antibody (MBS1753666) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # MBS176451) with DAB as the chromogen.



Immunofluorescence (IF) of anti-RAB1B antibody

Figure 7. IF analysis of RAB1B using anti- RAB1B antibody (MBS1753666).RAB1B was detected in immunocytochemical section of T-47D cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (MBS176582) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5?g/mL rabbit anti-RAB1B Antibody (MBS1753666) overnight at 4 degree C. DyLight®488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry (FC/FACS) of anti-RAB1B antibody

Figure 8. Flow Cytometry analysis of HEPA1-6 cells using anti-RAB1B antibody (MBS1753666).Overlay histogram showing HEPA1-6 cells stained with MBS1753666 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-RAB1B Antibody (MBS1753666, 1?g/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10?g/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1?g/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for RAB1B. It may not necessarily be applicable to this product.

NCBI GI #	13569962
NCBI GeneID	81876
NCBI Accession #	NP_112243.1
UniProt Primary Accession #	Q9H0U4
UniProt Secondary Accession #	A8K7S1
UniProt Related Accession #	Q9H0U4
GenBank Nucleotide #	NM_030981.2
NCBI Official Full Name	ras-related protein Rab-1B
NCBI Official Synonym Full Names	RAB1B, member RAS oncogene family

NCBI Official Symbol	RAB1B
UniProt Protein Name	Ras-related protein Rab-1B
Protein Family	Ras-related protein
UniProt Gene Name	RAB1B
UniProt Entry Name	RAB1B_HUMAN
NCBI Protein Information	ras-related protein Rab-1B; small GTP-binding protein
NCBI Summary for RAB1B	Members of the RAB protein family, such as RAB1B, are low molecular mass monomeric GTPases localized on the cytoplasmic surfaces of distinct membrane-bound organelles. RAB1B functions in the early secretory pathway and is essential for vesicle transport between the endoplasmic reticulum (ER) and Golgi (Chen et al., 1997 [PubMed 9030196]; Alvarez et al., 2003 [PubMed 12802079]).[supplied by OMIM, Jan 2009]
UniProt Comments for RAB1B	RAB1B: Protein transport. Regulates vesicular transport between the endoplasmic reticulum and successive Golgi compartments. Belongs to the small GTPase superfamily. Rab family. Protein type: G protein, monomeric, Rab; G protein; G protein, monomeric Chromosomal Location of Human Ortholog: 11q12 Cellular Component: Golgi membrane; Golgi apparatus; endoplasmic reticulum membrane; mitochondrion; pre-autophagosomal structure membrane; ER-Golgi intermediate compartment Molecular Function: GTPase activity; protein binding; GDP binding; GTP binding Biological Process: intracellular protein transport; ER to Golgi vesicle-mediated transport; autophagy; virus assembly; Rab protein signal transduction
Research Articles on RAB1B	**1.** Our results show, for the first time, that changes in Rab1b levels modulate gene transcription and strongly suggest that a Rab1b increase is required to elicit a secretory response.
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