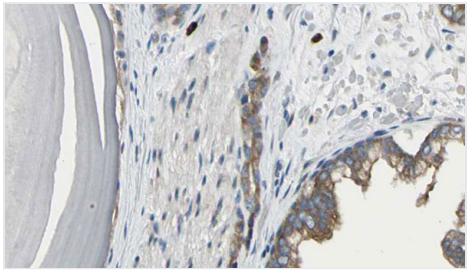
Rab5A Antibody – Rabbit Polyclonal

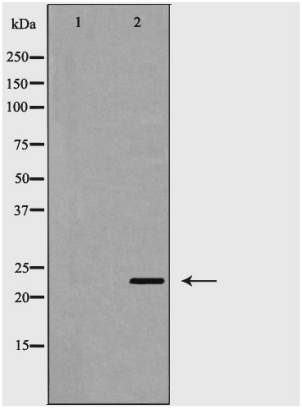
PRODUCT OVERVIEW

Product Name	Rab5A, Polyclonal Antibody
Full Product Name	Rab5A Antibody
Product Gene Name	anti-Rab5A antibody
Product Synonym Names	RAB 5; RAB 5A; RAB5A; RAB5A member RAS oncogene family; RAB5A_HUMAN; RAS associated protein RAB5A; Ras related protein Rab 5A; Ras-related protein Rab-5A
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Concentration	1mg/ml (lot specific)
Specificity	Rab5A antibody detects endogenous levels of total Rab5A
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.
Antibody/Peptide Pairs	Rab5A peptide (MBS9616809) is used for blocking the activity of Rab5A antibody (MBS9601277)
Molecular Weight	Observed: 24 kDa Predicted: 24 kDa
3D Structure	ModBase 3D Structure for P20339
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Immunogen	A synthesized peptide derived from human Rab5A
Subcellular Location	Cell Membrane. Early Endosome Membrane. Melanosome. Enriched in stage I melanosomes.
Predicted Cross Reactivity	**Bovine, Horse, Sheep, Rabbit, Dog, Chicken**
Similarity	Bovine (92%), Horse (100%), Sheep (92%), Rabbit (92%), Dog (100%), Chicken (83%)
Conjugation	Unconjugated
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-Rab5A antibody	Western Blot (WB), Immunohistochemistry (IHC), ELISA (EIA)
Application Notes for anti-Rab5A antibody	WB: 1:500-1:2000 IHC: 1:50-1:200

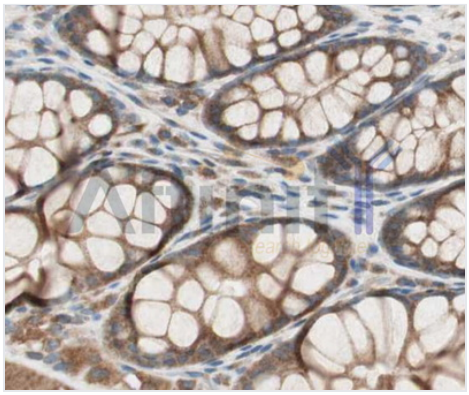
Related Product Information for anti-Rab5A antibody	Description: Required for the fusion of plasma membranes and early endosomes. Function: The small GTPases Rab are key regulators of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes. Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to membranes different sets of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion. RAB5A is required for the fusion of plasma membranes and early endosomes (PubMed:10818110, PubMed:14617813, PubMed:16410077, PubMed:15378032). Contributes to the regulation of filopodia extension (PubMed:14978216). Required for the exosomal release of SDCBP, CD63, PDCD6IP and syndecan (PubMed:22660413). Regulates maturation of apoptotic cell-containing phagosomes, probably downstream of DYN2 and PIK3C3 (By similarity). Subunit Structure: Interacts with SGSM1 and SGSM3 (By similarity). Interacts with PIK3CB (By similarity). Interacts with GDI1; this promotes dissociation from membranes (PubMed:23815289). Interacts with EEA1 (PubMed:10491193, PubMed:20534488). Interacts with RIN1 and GAPVD1, which regulate its pathway, probably by acting as a GEF (PubMed:11703925, PubMed:16410077). Interacts with RINL. Interacts with ALS2CL, SUN2, ZFYVE20 and RUFY1 (PubMed:10818110, PubMed:11062261, PubMed:15388334, PubMed:14617813, PubMed:16034420). Interacts with RABEP1; one RABEP1 homodimer binds two RAB5A chains, but at opposite sides of the dimer (PubMed:15378032). Interacts with OCRL (PubMed:25869668). Interacts with INPP5F. May be a component of a complex composed of RAB5A, DYN2 and PIK3C3 (By similarity). Does not interact with BLOC-3 complex (heterodimer of HPS1 and HPS4) (By similarity). Interacts with CLN5 (PubMed:22431521). Similarity: Belongs to the small GTPase superfamily. Rab family.
Other Notes	Small volumes of anti-Rab5A 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 Rab5A purchase	MBS9601277 is an antibody targeting Rab5A. Also known as Rab5A Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



Immunohistochemistry (IHC) of anti-Rab5A antibody
MBS9601277 at 1/100 staining Human prostate tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



Western Blot (WB) of anti-Rab5A antibody
Western blot analysis of Rab5A expression in HeLa cell lysate, The lane on the left is treated with the antigen-specific peptide.



Immunohistochemistry (IHC) of anti-Rab5A antibody
MBS9601277 at 1/100 staining human colon tissues sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at121 degree

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Rab5A. It may not necessarily be applicable to this product.

NCBI GI #	635574573
NCBI GeneID	5868
NCBI Accession #	NP_001278977.1
UniProt Primary Accession #	P20339
UniProt Secondary Accession #	Q6FI44; B4DJA5
UniProt Related Accession #	P20339
GenBank Nucleotide #	NM_001292048.1
NCBI Official Full Name	ras-related protein Rab-5A isoform 2
NCBI Official Synonym Full Names	RAB5A, member RAS oncogene family
NCBI Official Symbol	RAB5A
NCBI Official Synonym Symbols	RAB5
UniProt Protein Name	Ras-related protein Rab-5A
Protein Family	Ras-related protein
UniProt Gene Name	RAB5A
UniProt Synonym Gene Names	RAB5
NCBI Protein Information	ras-related protein Rab-5A
UniProt Comments for Rab5A	The small GTPases Rab are key regulators of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes. Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to membranes different sets of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion. RAB5A is required for the fusion of plasma membranes and early endosomes (PubMed:10818110, PubMed:14617813, PubMed:16410077, PubMed:15378032). Contributes to the regulation of filopodia extension (PubMed:14978216). Required for the exosomal release of SDCBP, CD63, PDCD6IP and syndecan (PubMed:22660413). Regulates maturation of apoptotic cell-containing phagosomes, probably downstream of DYN2 and PIK3C3 ().
Research Articles on Rab5A	**1.** The authors demonstrate that RABGEF1, the upstream factor of the endosomal Rab GTPase cascade, is recruited to damaged mitochondria via ubiquitin binding downstream of Parkin. RABGEF1 directs the downstream Rab proteins, RAB5 and RAB7A, to damaged mitochondria, whose associations are further regulated by mitochondrial Rab-GAPs.
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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