abcam

ab280955

Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR24472-24
Purification technique	Affinity purification Protein A
Concentration	1.007 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Transfected cell lysate - Human, Mouse, Rat, Human
Dilution info	-

Notes	-

ICC/IF

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Transfected cell lysate - Human
Dilution info	-
Notes	-

IP

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Transfected cell lysate - Human
Dilution info	-
Notes	-

IHC-Fr

Not recommended

Species	Mouse, Rat, Human, Transfected cell lysate - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Transfected cell lysate - Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Human
Dilution info	-
Notes	-

Target data

See full target information RAB6A

Function

The small GTPases Rab are key regulators of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes (PubMed:25962623). 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 (PubMed:25962623). RAB6A acts as a regulator of COPI-independent retrograde transport from the Golgi apparatus towards the endoplasmic reticulum (ER) (PubMed:25962623). Has a low GTPase activity (PubMed:25962623). Recruits VPS13B to the Golgi membrane (PubMed:25492866). Plays a role in neuron projection development (Probable).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab280955 is the carrier-free version of ab271094.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Rab 6A also known as Ras-related protein Rab-6A is a member of the Rab family of small GTPases and has a molecular weight of approximately 24 kDa. This protein plays an essential role in intracellular transport mechanisms particularly overseeing the trafficking of proteins and lipids between the Golgi apparatus and the endoplasmic reticulum. Rab 6A is expressed in various tissues but is found predominantly in neuronal tissues where it has vital functions.
Biological function summary	This protein is involved in regulating membrane trafficking and maintains Golgi apparatus structure. Rab 6A engages with several other proteins to form complexes necessary for the vesicular transport processes. It aids in coordinating the interactions between transport vesicles and their target membranes directly impacting cellular homeostasis and protein export.
Pathways	Rab 6A operates significantly in the secretory pathway as well as the Golgi retrograde transport pathway. Within the secretory pathway it directly affects protein sorting and recycling. Additionally Rab 6A interacts with proteins such as Bicaudal-D and dynactin which link it to the recruitment and movement of vesicular cargo along the microtubules integrating it into the broader network of intracellular pathway regulation.
Associated diseases and disorders	Rab 6A has connections with neurological conditions. Its dysfunction or misregulation can impact neurodegenerative diseases such as Alzheimer's disease by disrupting protein processing and transport. Rab 6A interacts with amyloid precursor protein-processing pathways emphasizing its role in disease pathways. Also Rab 6A is linked to disorders affecting the Golgi apparatus a critical site for protein post-translational modification and trafficking within cells.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

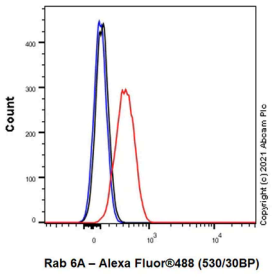
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

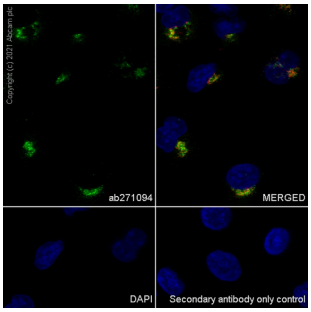
14 product images



Flow Cytometry (Intracellular) - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] - BSA and Azide free (ab280955)

Rab 6A + Rab 6D + Ral-A Flow Cytometry (Intracellular) staining using rabbit Anti-Rab 6A + Rab 6D + Ral-A antibody

This data was developed using ab271094, the same antibody clone in a different buffer formulation.
Flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized A549 (Human lung carcinoma epithelial cell) cells labelling Rab 6A + Rab 6D + Ral-A with ab271094 at 1/50 dilution (1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.

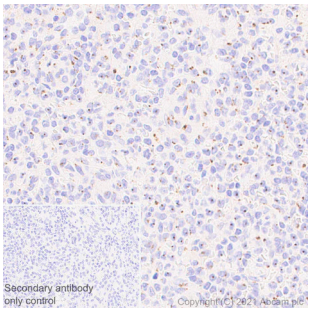


Immunocytochemistry/ Immunofluorescence - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] - BSA and Azide free (ab280955)

Rab 6A + Rab 6D + Ral-A Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Rab 6A + Rab 6D + Ral-A antibody

This data was developed using ab271094, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 100% methanol-fixed, 0.1% TritonX-100 permeabilized A549 cells labelling Rab 6A + Rab 6D + Ral-A with ab271094 at 1/50 (11.84 ug/ml) dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing golgi staining in A549 cell line. ab169276 Anti-GM130 mouse polyclonal antibody - cis-Golgi Marker was used to counterstain the GM-130 at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



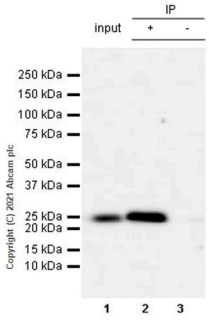
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] - BSA and Azide free (ab280955)

Rab 6A + Rab 6D + Ral-A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Rab 6A + Rab 6D + Ral-A antibody

This data was developed using ab271094, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human spleen tissue labelling Rab 6A + Rab 6D + Ral-A with ab271094 at 1/2000 (0.296 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Granular cytoplasmic staining on human spleen. The section was incubated with ab271094 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Immunoprecipitation - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] - BSA and Azide free (ab280955)

This data was developed using ab271094, the same antibody clone in a different buffer formulation.
Rab 6A was immunoprecipitated from 0.35 mg A549 (human lung carcinoma epithelial cell) whole cell lysate with ab271094 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab271094 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/5000 dilution.

Lane 1: A549 (human lung carcinoma epithelial cell) whole cell lysate 10 ug

Lane 2: ab271094 IP in A549 whole cell lysate

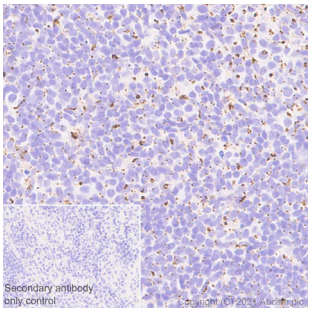
Lane 3:Rabbit monoclonal IgG (ab172730) instead of ab271094 in A549 whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 10 seconds.
All lanes:
Immunoprecipitation - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] (ab271094)

Predicted band size: 24 kDa

Observed band size: 24 kDa

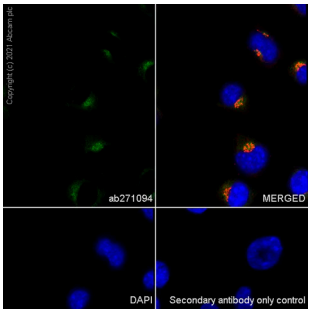


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] - BSA and Azide free (ab280955)

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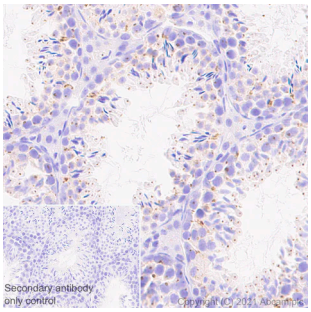


Immunocytochemistry/ Immunofluorescence - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] - BSA and Azide free (ab280955)

Rab 6A + Rab 6D + Ral-A Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Rab 6A + Rab 6D + Ral-A antibody

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Immunofluorescent analysis of 100% methanol-fixed, 0.1% Triton X-100 permeabilized Neuro-2a cells labelling Rab 6A + Rab 6D + Ral-A with ab271094 at 1/50 (11.84 ug/ml) dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing golgi staining in Neuro-2a cell line. ab169276 Anti-GM130 mouse polyclonal antibody - cis-Golgi Marker was used to counterstain GM130 at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).

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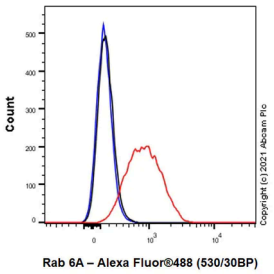
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] - BSA and Azide free (ab280955)

Rab 6A + Rab 6D + Ral-A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Rab 6A + Rab 6D + Ral-A antibody

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Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

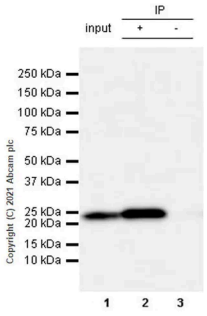
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Rab 6A + Rab 6D + Ral-A Flow Cytometry (Intracellular) staining using rabbit Anti-Rab 6A + Rab 6D + Ral-A antibody

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Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Neuro-2a (Mouse neuroblastoma neuroblast) cells labelling Rab 6A + Rab 6D + Ral-A with ab271094 at 1/50 dilution (1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] - BSA and Azide free (ab280955)

This data was developed using ab271094, the same antibody clone in a different buffer formulation.
Rab 6A was immunoprecipitated from 0.35 mg Neuro-2a (mouse neuroblastoma neuroblast) whole cell lysate with ab271094 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab271094 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/5000 dilution.

Lane 1: Neuro-2a (mouse neuroblastoma neuroblast) whole cell lysate 10 ug

Lane 2: ab271094 IP in Neuro-2a whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab271094 in Neuro-2a whole cell lysate

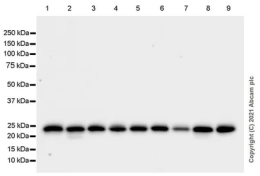
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 10 seconds.

All lanes:
Immunoprecipitation - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] (ab271094)

Predicted band size: 24 kDa

Observed band size: 24 kDa



Western blot - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] - BSA and Azide free (ab280955)

This data was developed using ab271094, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST

Exposure time: 26 seconds.

All lanes:
Western blot - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] (ab271094) at 1/1000 dilution

Lane 1:
PC-3 (human prostate adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
HT-29 (human colorectal adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 3:
HCT116 (human colorectal carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 4:
HEK-293T (human embryonic kidney epithelial cell) whole cell lysate at 20 µg

Lane 5:
A549 (human lung carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 6:
Neuro-2a (mouse neuroblastoma neuroblast) whole cell lysate at 20 µg

Lane 7:
NIH/3T3 (mouse embryonic fibroblast) whole cell lysate at 20 µg

Lane 8:
PC-12 (rat adrenal gland pheochromocytoma) whole cell lysate at 20 µg

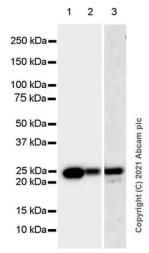
Lane 9:
C6 (rat glial tumor glial cell) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 24 kDa

Observed band size: 24 kDa



Western blot - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] - BSA and Azide free (ab280955)

Rab 6A + Rab 6D + Ral-A Western blot staining using rabbit Anti-Rab 6A + Rab 6D + Ral-A antibody

This data was developed using ab271094, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST

Exposure time: Lane 1-2: 15 secondsLane 3: 48 seconds.

All lanes:
Western blot - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] (ab271094) at 1/1000 dilution

Lane 1:
Human brain tissue lysate at 20 µg

Lane 2:
Human heart tissue lysate at 20 µg

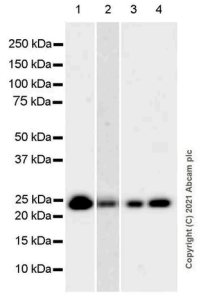
Lane 3:
Human kidney tissue lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 24 kDa

Observed band size: 24 kDa



Western blot - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] - BSA and Azide free (ab280955)

Rab 6A + Rab 6D + Ral-A Western blot staining using rabbit Anti-Rab 6A + Rab 6D + Ral-A antibody

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Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Exposure time: Lane 1, 3, 4: 48 secondsLane 2: 3 minutes.

All lanes:
Western blot - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] (ab271094) at 1/1000 dilution

Lane 1:
Rat brain tissue lysate at 20 µg

Lane 2:
Rat heart tissue lysate at 20 µg

Lane 3:
Rat kidney tissue lysate at 20 µg

Lane 4:
Rat spleen tissue lysate at 20 µg

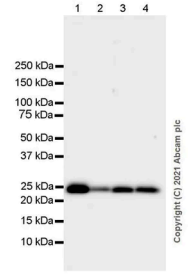
Secondary

All lanes:

Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 24 kDa

Observed band size: 24 kDa



Western blot - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] - BSA and Azide free (ab280955)

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Exposure time: 48 seconds.

All lanes:
Western blot - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] (ab271094) at 1/1000 dilution

Lane 1:
Mouse brain tissue lysate at 20 µg

Lane 2:
Mouse heart tissue lysate at 20 µg

Lane 3:
Mouse kidney tissue lysate at 20 µg

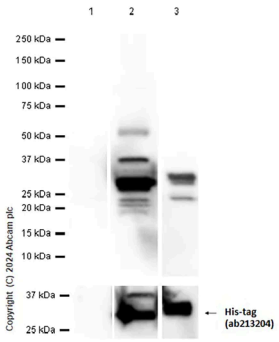
Lane 4:
Mouse spleen tissue lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 24 kDa

Observed band size: 24 kDa



Western blot - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] - BSA and Azide free (ab280955)

Blocking and diluting buffer and concentration: 5% NFDM /TBST
All lanes:
Western blot - Anti-Rab 6A + Rab 6D + Ral-A antibody [EPR24472-24] (ab271094) at 1/1000 dilution

Lane 1:
293T cells transfected with an empty vector containing a His tag whole cell lysate at 20 µg

Lane 2:
293T cells transfected with a human Rab6A expression vector containing a His-tag whole cell lysate at 20 µg

Lane 3:
293T cells transfected with a human Ral-A expression vector containing a His-tag whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 26 kDa

Exposure time: 1s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.