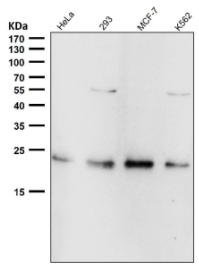
RAB22A Antibody / Ras related protein Rab-22A [clone 31R51] (FY12603)

Catalog No.	Formulation	Size
FY12603	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

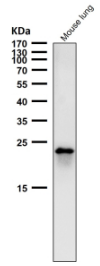
Recombinant RABBIT MONOCLONAL

Bulk quote request

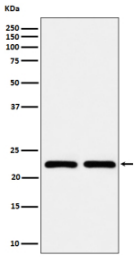
Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	31R51
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q9UL26
Applications	Western blot: 1:500-1:2000 Immunocytochemistry/Immunofluorescence: 1:50-1:200 Immunoprecipitation: 1:50
Limitations	This RAB22A antibody is available for research use only.



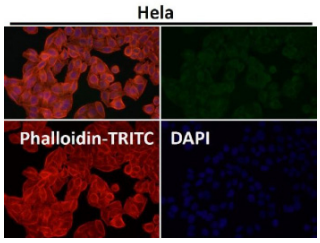
All lanes use the RAB22A antibody at 1:2000 dilution for 1 hour at room temperature. Predicted molecular weight ~22 kDa.



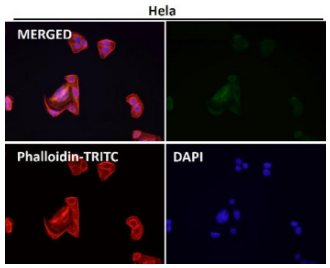
Mouse lung tissue lysate western blot tested with RAB22A antibody at 1:2000 dilution for 1 hour at room temperature. Predicted molecular weight ~22 kDa.



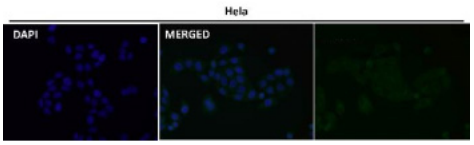
Western blot analysis of RAB22A expression in (1) MCF-7 cell lysate; (2) BxPC-3 cell lysate using RAB22A antibody. Predicted molecular weight ~22 kDa.



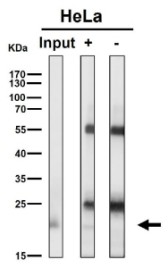
Immunofluorescent analysis using the RAB22A antibody at 1:50 dilution.



Immunofluorescent analysis using the RAB22A antibody at 1:50 dilution.



Immunofluorescent analysis using the RAB22A antibody at 1:150 dilution.



Immunoprecipitation analysis using the RAB22A antibody at 1:50 dilution (Western blot at 1:1000 dilution). Predicted molecular weight ~22 kDa.

Description

RAB22A antibody detects Ras related protein Rab-22A, a member of the Rab family of small GTPases encoded by the RAB22A gene. Rab proteins are key regulators of vesicle trafficking, controlling vesicle formation, motility, tethering, and fusion. RAB22A localizes to early endosomes and recycling endosomes, where it regulates cargo sorting and endosomal membrane dynamics. By cycling between an active GTP bound state and an inactive GDP bound state, RAB22A coordinates membrane trafficking and receptor recycling.

RAB22A antibody is widely applied in studies of endocytosis, membrane trafficking, and receptor regulation. RAB22A interacts with Rabex-5 and Rabaptin-5 to control early endosome maturation and crosstalk with Rab5 mediated pathways. It also contributes to recycling of transferrin receptors and growth factor receptors to the plasma membrane. By detecting RAB22A, researchers can examine how membrane trafficking proteins influence nutrient uptake, receptor signaling, and cellular homeostasis.

Western blot assays identify RAB22A protein bands of expected size in cell and tissue lysates. Immunohistochemistry highlights expression in epithelial and neuronal tissues, while immunofluorescence reveals punctate distribution consistent with endosomal localization. These techniques make RAB22A antibody versatile for cell biology research.

Dysregulation of RAB22A has been linked to cancer and neurodegeneration. Elevated RAB22A expression enhances receptor recycling and signaling, promoting tumor cell survival, invasion, and therapy resistance. In neurons, altered RAB22A activity contributes to trafficking defects and synaptic dysfunction. By applying RAB22A antibody, scientists can explore how small GTPases regulate intracellular trafficking and disease mechanisms.

Beyond cancer and neuroscience, RAB22A also participates in immune signaling and pathogen entry. Certain viruses exploit RAB22A regulated endocytosis for infection, highlighting its role in host-pathogen interactions. Its broad biological functions emphasize the importance of RAB22A antibody in both basic and translational research.

RAB22A antibody from NSJ Bioreagents delivers reliable specificity for studying Rab GTPase biology, vesicle trafficking, and signaling. Its strong performance across assays ensures accurate detection in diverse contexts.

Application Notes

Optimal dilution of the RAB22A antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human RAB22A was used as the immunogen for the RAB22A antibody.

Storage

Store the RAB22A antibody at -20oC.

Copyright © NSJ Bioreagents. All rights reserved.