

Product datasheet

Anti-RAB10 antibody [4E2] ab104859

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Overview

Product name	Anti-RAB10 antibody [4E2]
Description	Mouse monoclonal [4E2] to RAB10
Host species	Mouse
Tested applications	Suitable for: ICC/IF, WB, Flow Cyt
Species reactivity	Reacts with: Mouse, Human
Immunogen	Purified recombinant fragment of Human RAB10 expressed in E. coli.
Positive control	Hela and NIH/3T3 cell lysates; LOVO cells
General notes	<p>This product was changed from ascites to supernatant. Lot no's high than GR120151-16 are from Tissue Culture Supernatant</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C long term.
Storage buffer	Preservative: 0.05% Sodium azide Constituent: PBS
Purity	Protein G purified
Purification notes	Purified from tissue culture supernatant.
Clonality	Monoclonal
Clone number	4E2
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab104859 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/200 - 1/1000.
WB		1/500 - 1/2000. Predicted molecular weight: 23 kDa.
Flow Cyt		1/100. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

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 set of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion (By similarity). That Rab is mainly involved in the biosynthetic transport of proteins from the Golgi to the plasma membrane. Regulates, for instance, SLC2A4/GLUT4 glucose transporter-enriched vesicles delivery to the plasma membrane. In parallel, it regulates the transport of TLR4, a toll-like receptor to the plasma membrane and therefore may be important for innate immune response. Plays also a specific role in asymmetric protein transport to the plasma membrane within the polarized neuron and epithelial cells. In neurons, it is involved in axonogenesis through regulation of vesicular membrane trafficking toward the axonal plasma membrane while in epithelial cells, it regulates transport from the Golgi to the basolateral membrane. Moreover, may play a role in the basolateral recycling pathway and in phagosome maturation. According to PubMed:23263280, may play a role in endoplasmic reticulum dynamics and morphology controlling tubulation along microtubules and tubules fusion.

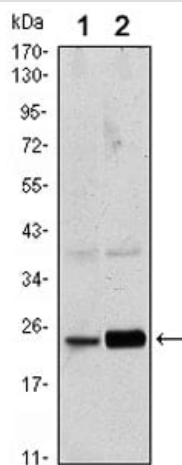
Sequence similarities

Belongs to the small GTPase superfamily. Rab family.

Cellular localization

Cytoplasmic vesicle membrane. Golgi apparatus membrane. Golgi apparatus, trans-Golgi network membrane. Endosome membrane. Recycling endosome membrane. Cytoplasmic vesicle, phagosome membrane. Cell projection, cilium. Endoplasmic reticulum membrane. Associates with SLC2A4/GLUT4 storage vesicles (PubMed:22908308). Localizes to the base of the cilium (PubMed:20576682). Transiently associates with phagosomes (By similarity). Localizes to the endoplasmic reticulum at domains of new tubule growth (PubMed:23263280).

Images



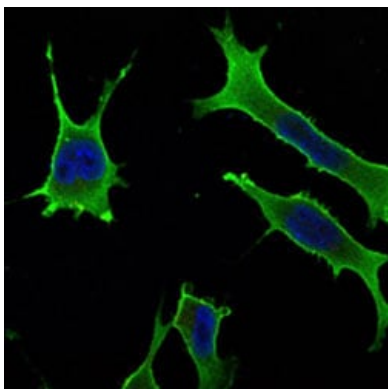
Western blot - Anti-RAB10 antibody [4E2] (ab104859)

All lanes : Anti-RAB10 antibody [4E2] (ab104859) at 1/500 dilution

Lane 1 : HeLa cell lysate

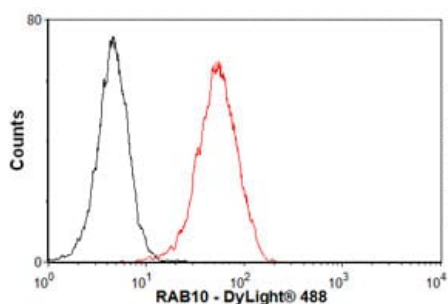
Lane 2 : NIH/3T3 cell lysate

Predicted band size: 23 kDa



Immunocytochemistry/ Immunofluorescence - Anti-RAB10 antibody [4E2] (ab104859)

Immunofluorescence analysis of LOVO cells using ab104859 (green). Blue: DRAQ5 fluorescent DNA dye.



Flow Cytometry - Anti-RAB10 antibody [4E2] (ab104859)

Overlay histogram showing HeLa cells stained with ab104859 (red line). The cells were fixed with 80% methanol (5 min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab104859, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91653**, 2µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed.

Please note that Abcam do not have any data for use of this antibody on non-fixed cells. We welcome any customer feedback.

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