abcam

Product datasheet

Anti-Rab9 antibody [Mab9] ab2810

KO VALIDATED

12 Abreviews 26 References 5 Images

Overview

Product name	Anti-Rab9 antibody [Mab9]
Description	Mouse monoclonal [Mab9] to Rab9
Host species	Mouse
Tested applications	**Suitable for:** WB, IHC-P **Unsuitable for:** Flow Cyt (Intra)
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat, Hamster, Cow, Dog, Non human primates
Immunogen	Recombinant full length protein corresponding to Dog Rab9.
Positive control	WB: MDA-MB-231, MCF7, HeLa, HEK293, Jurkat, HepG2 and K562 cell lysates. IHC-P: Human tonsil and spleen tissues.
General notes	This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact **orders@abcam.com**. 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. 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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 6.97% L-Arginine
Purity	Protein G purified

Primary antibody notes	Rab proteins are a family of Ras-like GTPases involved in intracellular compartment protein transport. Different members of the 40+ member rab family are responsible for docking and fusion of transport vesicles between different compartments within the cell. Rab 9 is required for trafficking mannose 6-phosphate receptor between the late endosome to trans-Golgi network (TGN). By facilitating receptor transport, rab 9 enables cells to efficiently recycle important cellular trafficking components. It is functionally necessary for rab 9, like other rab family members, to be prenylated by two 20-carbon geranylgeranyl groups at the C-terminus. Most prenylated rab 9 is membrane bound, however, 10-20% of the cellular pool of rab 9 is bound to GDP dissociation inhibitor-alpha (GDI-alpha) in the cytosol. GDI recycles prenylated, GDP bound rab 9 from their fusion targets back to their membranes of origin.
Clonality	Monoclonal
Clone number	Mab9
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab2810 in the following tested applications.

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

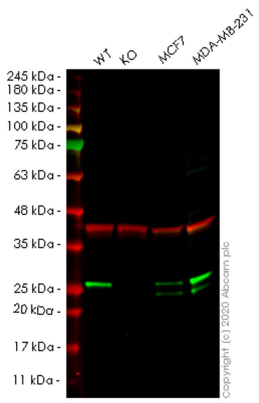
Application	Abreviews	Notes
WB	★★★★☆ (4)	Use a concentration of 10 µg/ml. Detects a band of approximately 22 kDa (predicted molecular weight: 22 kDa).
IHC-P	★★★★☆ (3)	Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Application notes Is unsuitable for Flow Cyt (Intra).

Target

Function	Involved in the transport of proteins between the endosomes and the trans Golgi network.
Sequence similarities	Belongs to the small GTPase superfamily. Rab family.
Cellular localization	Cell membrane. Endoplasmic reticulum membrane. Golgi apparatus membrane.

Images



Western blot - Anti-Rab9 antibody [Mab9] (ab2810)

All lanes : Anti-Rab9 antibody [Mab9] (ab2810) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : RAB9A knockout HeLa cell lysate
Lane 3 : MCF7 cell lysate
Lane 4 : MDA-MB-231 cell lysate

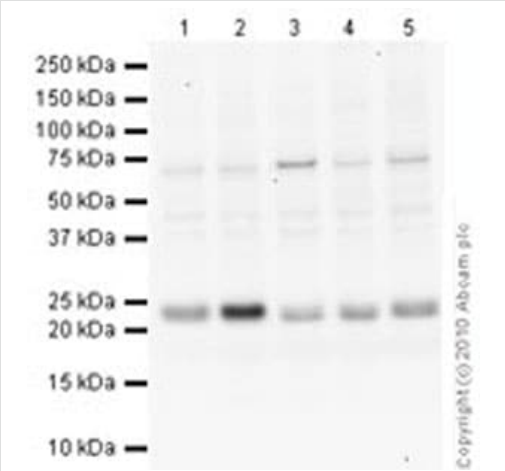
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (IRDye® 680RD) preadsorbed (**ab216777**) at 1/10000 dilution

Predicted band size: 22 kDa
Observed band size: 25 kDa

Lanes 1-4: Merged signal (red and green). Green - ab2810 observed at 25 kDa. Red - loading control **ab181602** observed at 36 kDa.

ab2810 Anti-Rab9 antibody [Mab9] was shown to specifically react with Rab9 in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab265693** (knockout cell lysate **ab257625**) was used. Wild-type and Rab9 knockout samples were subjected to SDS-PAGE. ab2810 and Anti-GAPDH antibody[EPR16891] - Loading Control (**ab181602**) were incubated at room temperature for 2. 5 hours at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-Rab9 antibody [Mab9] (ab2810)

All lanes : Anti-Rab9 antibody [Mab9] (ab2810) at 10 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 2 : HEK293 (Human embryonic kidney cell line) Whole Cell Lysate
Lane 3 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate
Lane 4 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate
Lane 5 : K562 (Human erythromyeloblastoid leukemia cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

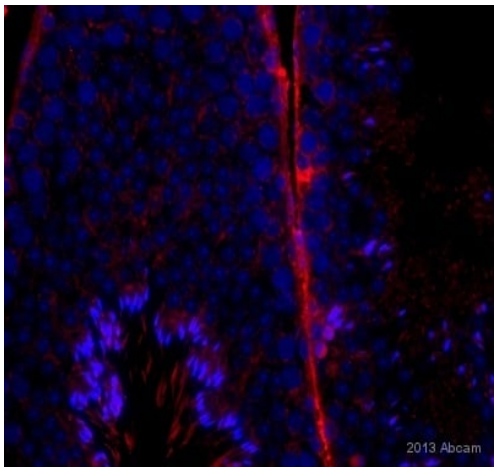
Secondary
All lanes : Goat Anti-Mouse IgG H&L (HRP) preadsorbed (**ab97040**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 22 kDa
Observed band size: 22 kDa
Additional bands at: 48 kDa, 70 kDa. We are unsure as to the identity of these extra bands.

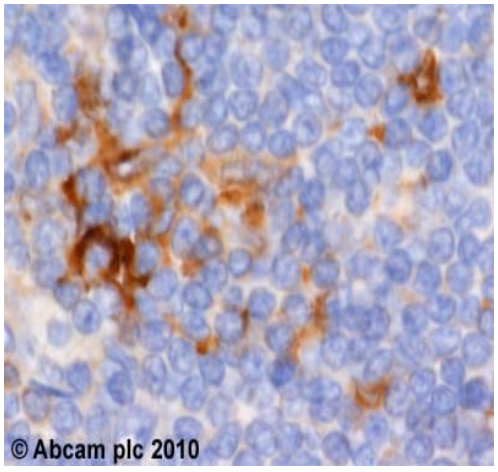
Exposure time: 20 minutes



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rab9 antibody [Mab9] (ab2810)

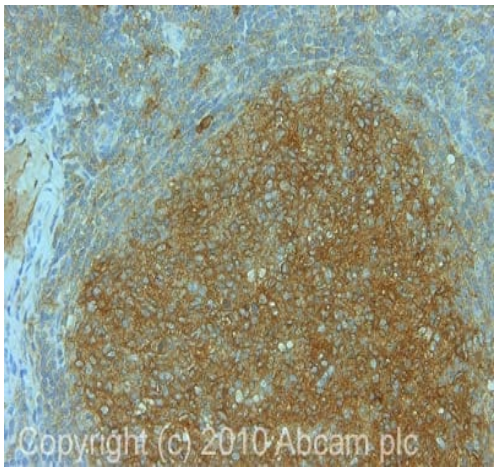
This image is courtesy of an Abreview submitted by Qin Wen

ab2810 staining Rab9 in Mouse adult testes tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with 4% paraformaldehyde and blocked with 5% BSA for 60 minutes at 25°C; antigen retrieval was by heat mediation in a citrate buffer. Samples were incubated with primary antibody (1/100 in 1% BSA) for 15 hours at 4°C. A TRITC-conjugated Donkey anti-mouse IgG polyclonal (1/200) was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rab9 antibody [Mab9] (ab2810)

ab2810 (2µg/ml) staining Rab9 in human spleen, using an automated system (DAKO Autostainer Plus). Using this protocol there is strong cytoplasmic and cell membrane staining. Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer citrate pH6.1 in a DAKO PT link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rab9 antibody [Mab9] (ab2810)

IHC image of Rab9 staining in human normal tonsil FFPE section, performed on a BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab2810, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX

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