abcam

Product datasheet

Anti-RAB29 (phospho T71) antibody [MJF-R24-17-1] ab241062



5 References 5 Images

Overview

Product name Anti-RAB29 (phospho T71) antibody [MJF-R24-17-1]

Description Rabbit monoclonal [MJF-R24-17-1] to RAB29 (phospho T71)

Host species Rabbit

Tested applications Suitable for: Dot blot, WB

Species reactivity Reacts with: Human

Immunogen Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control WB: HEK-293 overexpressing HA-tagged RAB29 and LRRK2 [Y1699C] whole cell lysate.

General notesThis 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 production

For more information see here.

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

This antibody was developed with support from The Michael J. Fox Foundation.



Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

Storage buffer pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

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Purity Protein A purified

Clonality Monoclonal

Clone number MJF-R24-17-1

Isotype IgG

Applications

The Abpromise guarantee

Our Abpromise guarantee covers the use of ab241062 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
Dot blot		1/1000.
WB		1/500. Detects a band of approximately 23 kDa (predicted molecular weight: 23 kDa).

Target

Function

Rab GTPase key regulator in vesicle trafficking. Essential for maintaining the integrity of the endosome-trans-Golgi network structure. Together with LRRK2, plays a role in the retrograde trafficking pathway for recycling proteins, such as mannose 6 phosphate receptor (M6PR), between lysosomes and the Golgi apparatus in a retromer-dependent manner. Regulates neuronal process morphology in the intact central nervous system (CNS). May play a role in the formation of typhoid toxin transport intermediates during Salmonella enterica serovar Typhi (S.Typhi) epithelial cell infection.

Tissue specificity

Ubiquitous.

Sequence similarities

Belongs to the small GTPase superfamily. Rab family.

Post-translational modifications

In case of Salmonella enterica serovar Typhimurium (S.Typhimurium) infection, is proteolytically cleaved between Gly-41 and Val-42 by the GtgE viral protease encoded on the Gifsy-2 lysogen bacteriophage, which therefore prevents the recruitment of RAB29 to S.Typhimurium-containing

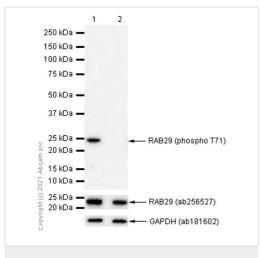
vacuoles. In contrast, no proteolytically cleavage is detected in S.Typhi-infected cells

(PubMed:22042847).

Cellular localization

Cell membrane. Cytoplasm. Cytoplasm, perinuclear region. Golgi apparatus. Golgi apparatus, trans-Golgi network. Vacuole. Cytoplasm, cytoskeleton. Colocalizes with LRRK2 along tubular structures emerging from Golgi apparatus (By similarity). Colocalizes with GM130 at the Golgi apparatus. Colocalizes with dynamic tubules emerging from and retracting to the Golgi apparatus. Colocalizes with TGN46 at the trans-Golgi network (TGN). In Salmonella enterica serovar Typhi (S.Typhi) infected epithelial cells, is recruited and colocalized with both S.Typhi-containing vacuoles and dynamic tubules as well as those emerging from the vacuole toward the cell periphery.

Images



Western blot - Anti-RAB29 (phospho T71) antibody [MJF-R24-17-1] (ab241062)

All lanes : Anti-RAB29 (phospho T71) antibody [MJF-R24-17-1] (ab241062) at 1/5000 dilution

Lane 1 : HEK-293 (human embryonic kidney) over-expressing HA-tagged RAB29 and LRRK2 [Y1699C], whole cell lysate

Lane 2: MLi-2 (100nM for 60min) treated HEK-293 overexpressing HA-tagged RAB29 and LRRK2 [Y1699C], whole cell lysate

Lysates/proteins at 15 µg per lane.

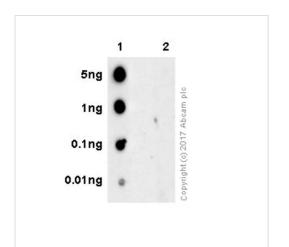
Secondary

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

Predicted band size: 23 kDa **Observed band size:** 23 kDa

Observed band size: 23 kDa

Blocking buffer: 5% NFDM/TBST.



Dot Blot - Anti-RAB29 (phospho T71) antibody [MJF-R24-17-1] (ab241062)

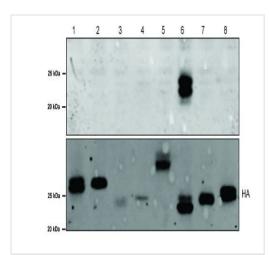
Dot blot analysis of RAB29 (phospho T71) labeled with ab241062 at 1/1000 dilution.

Lane 1: RAB29 (phospho T71) peptide. Lane 2: RAB29 non-phospho peptide.

Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/100000 dilution was used as secondary antibody.

Blocking and dilution buffer: 5% NFDM/TBST.

Exposure time: 3 minutes.



Western blot - Anti-RAB29 (phospho T71) antibody [MJF-R24-17-1] (ab241062)

All lanes : Anti-RAB29 (phospho T71) antibody [MJF-R24-17-1] (ab241062) at 1/500 dilution

Lane 1 : HEK-293 (human epithelial cell line from embryonic kidney) overexpressing HA-tagged RAB3 and LRRK2 [Y1699C], whole cell lysate

Lane 2: HEK-293 overexpressing HA-tagged RAB5 and LRRK2 [Y1699C], whole cell lysate

Lane 3: HEK-293 overexpressing HA-tagged RAB8 and LRRK2 [Y1699C], whole cell lysate

Lane 4: HEK-293 overexpressing HA-tagged RAB10 and LRRK2 [Y1699C], whole cell lysate

Lane 5: HEK-293 overexpressing HA-tagged RAB12 and LRRK2 [Y1699C], whole cell lysate

Lane 6 : HEK-293 overexpressing HA-tagged RAB29 and LRRK2 [Y1699C], whole cell lysate

Lane 7: HEK-293 overexpressing HA-tagged RAB35 and LRRK2 [Y1699C], whole cell lysate

Lane 8 : HEK-293 overexpressing HA-tagged RAB43 and LRRK2 [Y1699C], whole cell lysate

Lysates/proteins at 0.5 µg per lane.

Secondary

All lanes: IRDye® 800CW Goat-anti-Rabbit at 1/25000 dilution

Predicted band size: 23 kDa
Observed band size: 23 kDa

Blocking buffer: 5% NFDM/TBST.

Dilution buffer: 5% BSA/TBST.

The blot was scanned with LI-COR Odyssey CLx.

This image is kindly provided by our collaborator Dr. Dario Alessi, University of Dundee.



Western blot - Anti-RAB29 (phospho T71) antibody [MJF-R24-17-1] (ab241062)

All lanes : Anti-RAB29 (phospho T71) antibody [MJF-R24-17-1] (ab241062) at 1/500 dilution

Lane 1 : MLi-2 (100nM for 60min) treated HEK-293 (human epithelial cell line from embryonic kidney) overexpressing HA-tagged RAB29 and LRRK2 [Y1699C], whole cell lysate at 3 μ g

Lane 2 : HEK-293 overexpressing HA-tagged RAB29 and LRRK2 [Y1699C], whole cell lysate at 3 μg

Lane 3 : HEK-293 overexpressing HA-tagged RAB29 and LRRK2 [Y1699C], whole cell lysate at 1 μg

Lane 4 : HEK-293 overexpressing HA-tagged RAB29 and LRRK2 [Y1699C], whole cell lysate at $0.3~\mu g$

Lane 5 : HEK-293 overexpressing HA-tagged RAB29 and LRRK2 [Y1699C], whole cell lysate at 0.1 μg

Secondary

All lanes: IRDye® 800CW Goat-anti-Rabbit at 1/25000 dilution

Predicted band size: 23 kDa
Observed band size: 23 kDa

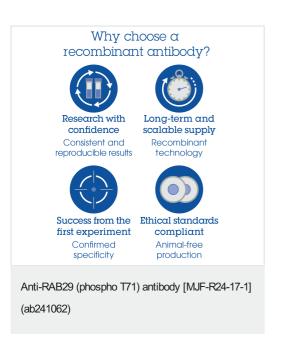
Blocking buffer: 5% NFDM/TBST.

Dilution buffer: 5% BSA/TBST.

The LRRK2 pathogenic mutation Y1699C increases LRRK2 activity and markedly elevates the phosphorylation of Rab proteins. While MLi-2 is a potent, selective LARRK2 kinase inhibitor (PMID: 26407721).

The blot was scanned with LI-COR Odyssey CLx.

This image is kindly provided by our collaborator Dr. Dario Alessi, University of Dundee



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