abcam

ab181209

Anti-C19orf63 antibody [EPR13223]

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR13223
Purification technique	Affinity purification Protein A
Concentration	1.212 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/230
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information EMC10

Function

Part of the endoplasmic reticulum membrane protein complex (EMC) that enables the energy-independent insertion into endoplasmic reticulum membranes of newly synthesized membrane proteins (PubMed:29242231, PubMed:29809151, PubMed:30415835, PubMed:32439656, PubMed:32459176). Preferentially accommodates proteins with transmembrane domains that are weakly hydrophobic or contain destabilizing features such as charged and aromatic residues (PubMed:29242231, PubMed:29809151, PubMed:30415835). Involved in the cotranslational insertion of multi-pass membrane proteins in which stop-transfer membrane-anchor sequences become ER membrane spanning helices (PubMed:29809151, PubMed:30415835). It is also required for the post-translational insertion of tail-anchored/TA proteins in endoplasmic reticulum membranes (PubMed:29242231, PubMed:29809151). By mediating the proper cotranslational insertion of N-terminal transmembrane domains in an N-exo topology, with translocated N-terminus in the lumen of the ER, controls the topology of multi-pass membrane proteins like the G protein-coupled receptors (PubMed:30415835). By regulating the insertion of various proteins in membranes, it is indirectly involved in many cellular processes (Probable). Promotes angiogenesis and tissue repair in the heart after myocardial infarction. Stimulates cardiac endothelial cell migration and outgrowth via the activation of p38 MAPK, PAK and MAPK2 signaling pathways (PubMed:28931551).

Storage

Shipped at conditions	Conditional Ambient

Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

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.

Supplementary info

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

Activity summary	The C19orf63 protein also known as MRG domain-binding protein (MRGBP) works mechanically as a component of the histone acetyltransferase complex. It weighs approximately 19 kDa and is expressed in various human tissues with notable expression in HeLa cells. This protein is integral to chromatin modifications influencing transcription regulation through histone acetylation.
Biological function summary	C19orf63 interacts within the histone acetyltransferase complex playing a role in the modification of chromatin structure. It participates in transcriptional regulation by modulating the acetylation state of histones thereby impacting gene expression. This protein does not work alone and requires interaction with other proteins to execute its function efficiently.

Pathways	C19orf63 operates in pathways related to chromatin modification and transcription control. The protein influences the regulation of transcriptional signaling pathways such as the acetylation-dependent signaling pathway. C19orf63 associates with proteins like PCAF a known histone acetyltransferase working together to maintain gene accessibility and transcription fidelity.
Associated diseases and disorders	C19orf63 has connections with certain cancers through its role in chromatin structure and function alteration. Abnormal expression of this protein might contribute to tumorigenesis by altering gene expression profiles. Through the histone modification pathway it connects with proteins like BRCA1 which is involved in DNA repair and is associated with breast cancer.

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

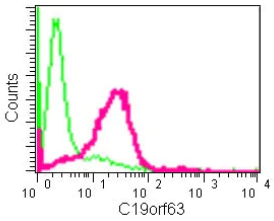
We do not recommend this combination. It is not covered by our product promise.

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.

5 product images

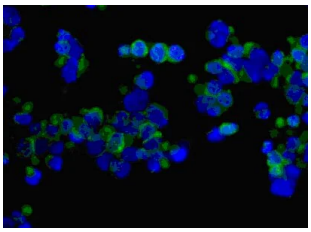


Flow Cytometry (Intracellular) - Anti-C19orf63 antibody [EPR13223] (ab181209)

C19orf63 Flow Cytometry (Intracellular) staining using rabbit Anti-C19orf63 antibody

Intracellular flow cytometric analysis of A549 cells (paraformaldehyde-fixed, 2%) labeling C19orf63 with ab181209 at 1/230 dilution (red) or a rabbit IgG (negative) (green), followed by Goat anti

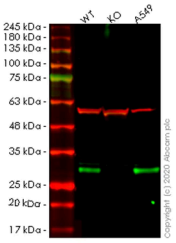
rabbit IgG (FITC) secondary at 1/150 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-C19orf63 antibody [EPR13223] (ab181209)

C19orf63 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-C19orf63 antibody

Immunofluorescent analysis of Ramos cells (-20°C Acetone-fixed) labeling C19orf63 with ab181209 at 1/100 dilution followed by Goat anti rabbit IgG (Alexa Fluor® 488) secondary at 1/200 dilution and counter-stained with DAPI (blue).



Western blot - Anti-C19orf63 antibody [EPR13223] (ab181209)

C19orf63 Western blot staining using rabbit Anti-C19orf63 antibody

Lanes 1-4: Merged signal (red and green). Green - ab181209 observed at 27 kDa. Red - loading control ab7291 observed at 50 kDa.
ab181209 Anti-C19orf63 antibody [EPR13223] was shown to specifically react with C19orf63 in wild-type HeLa cells. Loss of signal was observed when knockout cell line ab265783 (knockout cell lysate ab257939) was used. Wild-type and C19orf63 knockout samples were subjected to SDS-PAGE. ab181209 and Anti-alpha Tubulin antibody [DM1A] - Loading Control (ab7291) were incubated overnight at 4°C 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.

All lanes:
Western blot - Anti-C19orf63 antibody [EPR13223] (ab181209) at 1/1000 dilution

Lane 1:
Wild-type HeLa cell lysate at 20 µg

Lane 2:
EMC10 knockout HeLa cell lysate at 20 µg

Lane 2:
Western blot - Human EMC10 (C19orf63) knockout HeLa cell line (ab265783)

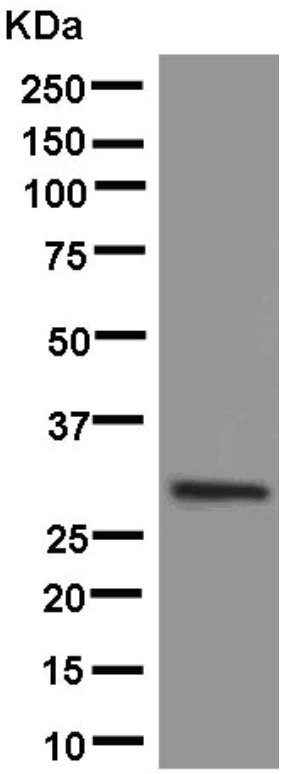
Lane 3:
A549 cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) at 1/10000 dilution

Predicted band size: 27 kDa

Observed band size: 27 kDa



Western blot - Anti-C19orf63 antibody [EPR13223] (ab181209)

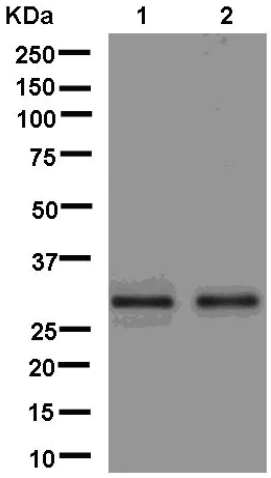
All lanes:
Western blot - Anti-C19orf63 antibody [EPR13223] (ab181209) at 1/20000 dilution

All lanes:
A549 cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution

Predicted band size: 27 kDa



Western blot - Anti-C19orf63 antibody [EPR13223] (ab181209)

All lanes:
Western blot - Anti-C19orf63 antibody [EPR13223] (ab181209) at 1/20000 dilution

Lane 1:
293 cell lysate at 10 µg

Lane 2:
U87-MG cell lysate at 10 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution

Predicted band size: 27 kDa

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