abcam

ab275962

Anti-MED12 antibody [BLR084G]

Recombinant | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 8.2 Preservative: 0.09% Sodium azide Constituents: 99% Borate buffered saline, 0.1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Human MED12 aa 2100-2200. The exact immunogen used to generate this antibody is proprietary information. Database link Q93074
Clone number	BLR084G
Purification technique	Affinity purification Protein A

Reactivity data

ICC

Tested

Species	Human
Dilution info	1/100 - 1/500
Notes	Epitope retrieval with citrate buffer pH6.0 is recommended.

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	20 µl/1 mg lysate

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/500

Notes	Epitope retrieval with citrate buffer pH6.0 is recommended

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1 µL for 10^6 Cells
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information MED12

Function	Component of the Mediator complex, a coactivator involved in the regulated transcription of nearly all RNA polymerase II-dependent genes. Mediator functions as a bridge to convey information from gene-specific regulatory proteins to the basal RNA polymerase II transcription machinery. Mediator is recruited to promoters by direct interactions with regulatory proteins and serves as a scaffold for the assembly of a functional pre-initiation complex with RNA polymerase II and the general transcription factors. This subunit may specifically regulate transcription of targets of the Wnt signaling pathway and SHH signaling pathway.

Storage

Shipped at conditions	Blue Ice

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

Notes

REACH authorisation
Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.
It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

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Supplementary info

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

Activity summary	MED12 also known as mediator complex subunit 12 is a component of the transcriptional Mediator complex. It weighs approximately 250 kDa and is widely expressed in many tissues showing high transcriptional regulatory activity. MED12 collaborates with other subunits within the Mediator complex to transmit signals from regulatory DNA elements to RNA polymerase II facilitating gene expression regulation.
Biological function summary	MED12 functions as a core component of the larger Mediator complex which plays an important role in controlling RNA polymerase II-dependent genes. Through interactions with activators and repressors MED12 participates in chromatin modification and looping affecting gene transcription rates. It is enriched in tissues where fine control of gene expression is essential impacting growth differentiation and development processes.
Pathways	MED12 integrates into critical signaling pathways including the Wnt/β-catenin and Hedgehog pathways. In these pathways MED12 interacts with other proteins like β-catenin serving as a connecting node that influences the transcription of target genes essential for cell proliferation and differentiation. Such interactions help coordinate cellular responses to external signals and ensure proper pathway regulation.

Associated diseases and disorders	MED12 mutations have been linked to disorders like Lujan-Fryns syndrome and uterine leiomyomas. In these contexts MED12 interacts with G protein-coupled receptors and other transcription factors such as β-catenin resulting in dysregulation that leads to the development of these conditions. Understanding the connections between MED12 and associated proteins provides insights into the underlying mechanisms of these pathologies.

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

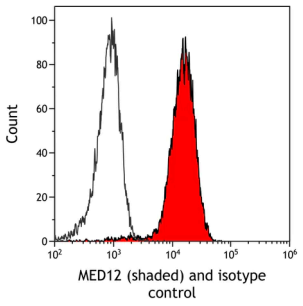
We do not recommend this combination. It is not covered by our product promise.

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.

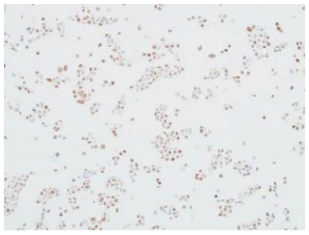
Full details and terms and conditions can be found here:
Terms & Conditions.

7 product images



Flow Cytometry - Anti-MED12 antibody [BLR084G] (ab275962)

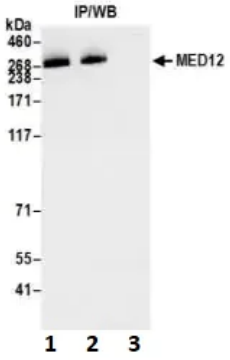
Flow cytometry overlay histogram of 4% formaldehyde fixed Jurkat cells permeabilized with 90% methanol labeling human MED12 with ab275962 at 1 µl per 1 x 10^6 cells (shaded) compared with a Isotype control (unshaded). Secondary antibody details: DyLight® 488-conjugated goat anti-rabbit IgG (ab96883).



Immunocytochemistry - Anti-MED12 antibody [BLR084G] (ab275962)

MED12 Immunocytochemistry staining using rabbit Anti-MED12 antibody

HCT-116 cells stained for MED12 using ab275962 at 1/500 dilution in immunocytochemistry.

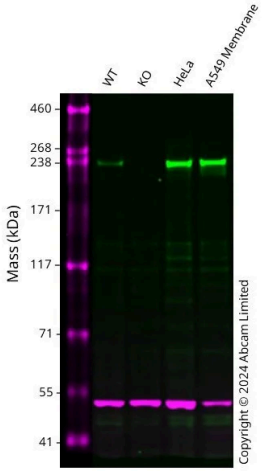


Immunoprecipitation - Anti-MED12 antibody [BLR084G] (ab275962)

Whole cell lysate (1.0 mg per IP reaction; 20% of IP loaded) from HeLa cells prepared using NETN lysis buffer.
ab275962 used for IP at 20 µl/mg lysate. For blotting immunoprecipitated MED12, ab275962 was used at 1/1000 dilution. Chemiluminescence with an exposure time of 10 seconds.

All lanes:
Immunoprecipitation - Anti-MED12 antibody [BLR084G] (ab275962)

Predicted band size: 243 kDa



Western blot - Anti-MED12 antibody [BLR084G] (ab275962)

MED12 Western blot staining using rabbit Anti-MED12 antibody

Western blot: Anti-MED12 antibody [BLR084G] (ab275962) staining at 1/1000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] (ab7291) loading control staining at 1/20000 dilution, shown in magenta. In Western blot, ab275962 was shown to bind specifically to MED12. A band was observed at 238-243 kDa in wild-type HCT 116 cell lysates with no signal observed at this size in MED12 knockout cell line. To generate this image, wild-type and MED12 knockout HCT 116 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.
All lanes:
Western blot - Anti-MED12 antibody [BLR084G] (ab275962) at 1/1000 dilution

Lane 1:
Wild-type HCT 116 cell lysate at 20 µg

Lane 2:
MED12 knockout HCT 116 cell lysate at 20 µg

Lane 3:
HeLa cell lysate at 20 µg

Lane 4:
A549 Membrane cell lysate at 20 µg

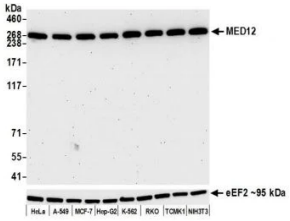
Secondary

Lanes 1 - 4:
Goat anti-Rabbit IgG H&L 800CW at 1/20000 dilution

Lanes 1 - 4:
Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution

Performed under reducing conditions.

Observed band size: 238-243 kDa



Western blot - Anti-MED12 antibody [BLR084G] (ab275962)

Chemiluminescence with an exposure time of 75 seconds.
Lower Panel: Rabbit anti-eEF2

All lanes:
Western blot - Anti-MED12 antibody [BLR084G] (ab275962) at 1/1000 dilution

Lane 1:
HeLa whole cell lysate at 50 µg

Lane 2:
A549 whole cell lysate at 50 µg

Lane 3:
MCF-7 whole cell lysate at 50 µg

Lane 4:
HepG2 whole cell lysate at 50 µg

Lane 5:
K562 whole cell lysate at 50 µg

Lane 6:
RKO whole cell lysate at 50 µg

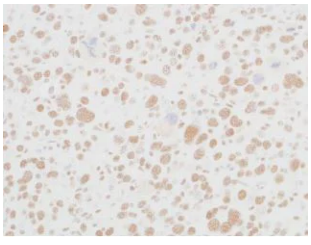
Lane 7:
TCMK-1 whole cell lysate at 50 µg

Lane 8:
NIH/3T3 whole cell lysate at 50 µg

Secondary

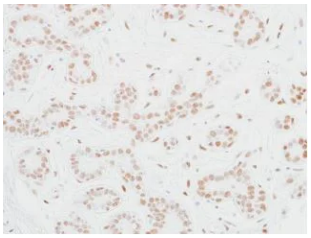
All lanes:
HRP-conjugated goat anti-rabbit IgG

Predicted band size: 243 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MED12 antibody [BLR084G] (ab275962)

Paraffin embedded renal carcinoma tissue stained for MED12 using ab275962 at 1/500 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MED12 antibody [BLR084G] (ab275962)

Paraffin embedded breast carcinoma tissue stained for MED12 using ab275962 at 1/500 dilution in immunohistochemical analysis.

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