abcam

ab180579

Anti-Mad2L2/REV7 antibody [EPR13657]

Recombinant | RabMAb

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	EPR13657
Purification technique	Affinity purification Protein A
Concentration	0.373 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/40
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/70
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/50
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information MAD2L2

Function Adapter protein able to interact with different proteins and involved in different biological processes (PubMed:11459825, PubMed:11459826, PubMed:17296730, PubMed:17719540, PubMed:19443654, PubMed:29656893). Mediates the interaction between the error-prone DNA polymerase zeta catalytic subunit REV3L and the inserter polymerase REV1, thereby mediating the second polymerase switching in translesion DNA synthesis (PubMed:20164194, PubMed:23143872). Translesion DNA synthesis releases the replication blockade of replicative polymerases, stalled in presence of DNA lesions (PubMed:20164194). Component of the shieldin complex, which plays an important role in repair of DNA double-stranded breaks (DSBs) (PubMed:29656893). During G1 and S phase of the cell cycle, the complex functions downstream of TP53BP1 to promote non-homologous

end joining (NHEJ) and suppress DNA end resection (PubMed:29656893). Mediates various NHEJ-dependent processes including immunoglobulin class-switch recombination, and fusion of unprotected telomeres (PubMed:29656893). May also regulate another aspect of cellular response to DNA damage through regulation of the JNK-mediated phosphorylation and activation of the transcriptional activator ELK1 (PubMed:17296730). Inhibits the FZR1- and probably CDC20-mediated activation of the anaphase promoting complex APC thereby regulating progression through the cell cycle (PubMed:11459825, PubMed:17719540). Regulates TCF7L2-mediated gene transcription and may play a role in epithelial-mesenchymal transdifferentiation (PubMed:19443654).

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 protein Mad2L2 also known as REV7 plays important roles in cellular processes. It has a molecular weight of about 26 kDa and is expressed in various tissues including the testis and placenta. Mad2L2 is an important component of the DNA damage response functioning mainly in the regulation of mitosis and repair of DNA double-strand breaks. It acts as a regulatory subunit and inhibitor of the translesion DNA synthesis (TLS) polymerase complex influencing processes linked to DNA fidelity.
Biological function summary	The protein is important for maintaining genome integrity by participating in the Fanconi anemia (FA) pathway ensuring proper DNA repair. Mad2L2 forms an important part of the homologous recombination repair system and plays a role in the recruitment of additional repair factors. It is often seen as a part of the shieldin complex which works to protect DNA ends during repair. This complex safeguarding allows it to prevent inappropriate activity during the DNA repair process.
Pathways	The involvement of Mad2L2 highlights its critical role in DNA repair mechanisms specifically homologous recombination and non-homologous end joining (NHEJ). It interacts with proteins such as 53BP1 and RIF1 within these pathways to mediate DNA repair. Such interaction is essential for choosing the correct repair pathway based on cellular needs. Mad2L2's function within the pathway guarantees the accurate resolution and repair of DNA lesions.
Associated diseases and disorders	The protein's relevance underlines its connection to cancer and genetic disorders like Fanconi anemia. Mutations or irregularities in Mad2L2 can contribute to genomic instability leading to cancer development. In particular its interaction with the BRCA1 and BRCA2 proteins is significant; disruptions in these interactions link to increased cancer risk. This connection with tumor suppression pathways makes Mad2L2 an interesting target for therapeutic strategies in oncology.

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

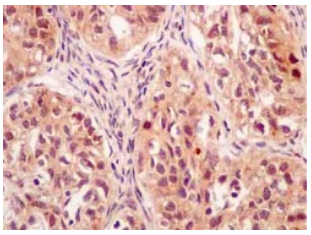
We do not recommend this combination. It is not covered by our product promise.

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.

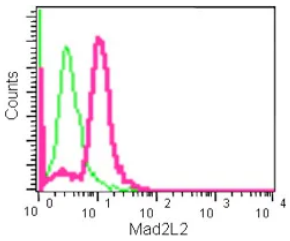
5 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Mad2L2/REV7 antibody [EPR13657] (ab180579)

Mad2L2/REV7 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Mad2L2/REV7 antibody

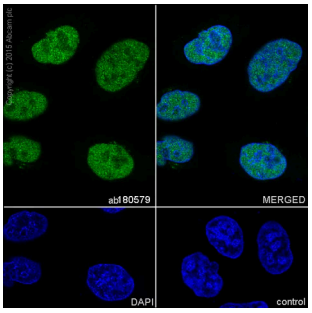
Immunohistochemical staining of paraffin-embedded human ovarian carcinoma tissue labeling Mad2L2/REV7 using ab180579 at a 1/50 dilution and ImmunoHistoprobe HRP Polymer for Rabbit IgG. Counterstained with hematoxylin. Heat mediated antigen retrieval was performed with EDTA buffer pH 9 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Mad2L2/REV7 antibody [EPR13657] (ab180579)

Mad2L2/REV7 Flow Cytometry (Intracellular) staining using rabbit Anti-Mad2L2/REV7 antibody

Intracellular flow cytometric analysis of paraformadehyde fixed K562 cells labeling Mad2L2/REV7 with ab180579 at 1/70 dilution andGoat anti rabbit IgG (FITC) at 1/50.

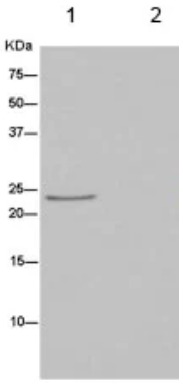


Immunocytochemistry/ Immunofluorescence - Anti-Mad2L2/REV7 antibody [EPR13657] (ab180579)

Mad2L2/REV7 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Mad2L2/REV7 antibody

Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling Mad2L2/REV7 with ab129199 at 1/500. Cells were fixed with 4% Paraformaldehyde. ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody.

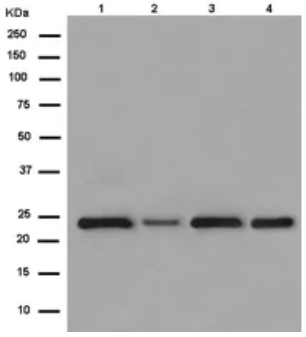
Control: PBS only.
Nuclear counter stain: DAPI.



Immunoprecipitation - Anti-Mad2L2/REV7 antibody [EPR13657] (ab180579)

Immunoprecipitation of HeLa cell lysate labeling Mad2L2/REV7 using ab180579 at 1/40 dilution (lane 1) or negative control (lane 2) followed by anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1500.
All lanes:
Immunoprecipitation - Anti-Mad2L2/REV7 antibody [EPR13657] (ab180579)

Predicted band size: 24 kDa



Western blot - Anti-Mad2L2/REV7 antibody [EPR13657] (ab180579)

All lanes:
Western blot - Anti-Mad2L2/REV7 antibody [EPR13657] (ab180579) at 1/1000 dilution

Lane 1:
K562 cell lysate at 10 µg

Lane 2:
SW480 cell lysate at 10 µg

Lane 3:
Hela cell lysate at 10 µg

Lane 4:
Molt-4 cell lysate at 10 µg

Secondary

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

Predicted band size: 24 kDa

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