abcam

ab243859

Anti-MDMX/MDM4 antibody [BL-3-2F2]

Recombinant

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.8 - 8.6 Preservative: 0.09% Sodium azide Constituents: 98% Borate buffered saline, 0.1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Human MDM4 aa 100 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link O15151
Clone number	BL-3-2F2
Purification technique	Affinity purification Protein A
Concentration	0.1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Cell culture supernatant was harvested from mammalian cells expressing recombinant rabbit monoclonal antibody.

Reactivity data

IP

Tested

Species	Human

Dilution info	-
Notes	Use 20µg/mg lysate.

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Flow Cyt

Tested

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

Target data

See full target information MDM4

Function	Contributes to p53/TP53 regulation (PubMed:32300648). Inhibits p53/TP53- and p73/TP73-mediated cell cycle arrest and apoptosis by binding their transcriptional activation domains. Inhibits degradation of MDM2. Can reverse MDM2-targeted degradation of TP53 while maintaining suppression of TP53 transactivation and apoptotic functions.

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.

This product is sold under License from Bethyl Laboratories, Inc.

Supplementary info

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

Activity summary	The MDMX protein also known as MDM4 is an important regulator in the control of the p53 tumor suppressor pathway. Typically MDMX can be found expressed in multiple tissue types including the brain and kidney. MDMX with a molecular mass of approximately 54 kDa functions as an E3 ligase that binds to the p53 protein inhibiting its transcriptional activity and promoting its degradation. This precise interaction with p53 allows the regulation of cell growth and apoptosis making MDMX an important target for cancer research.
Biological function summary	MDMX contributes significantly to cell cycle regulation and apoptosis by forming a complex with MDM2 another E3 ubiquitin ligase. Together with MDM2 MDMX modulates the stability and activity of p53 therefore influencing cell fate decisions. This complex is important in preventing unwarranted p53 activity ensuring that the cell only undergoes apoptosis or cell cycle arrest in response to specific stress signals.
Pathways	The MDMX protein plays a central role in the p53 signaling pathway a critical mechanism in cellular response to genomic damage. It interacts directly with MDM2 to regulate p53's activity maintaining a balance between cell proliferation and death. This pathway is tightly linked to the DNA damage response providing a checkpoint during the cell cycle to prevent the propagation of genetically unstable cells. Additionally MDMX influences the PI3K/AKT pathway further intertwining its function with cellular survival processes.
Associated diseases and disorders	The deregulation of MDMX is often associated with various forms of cancer including breast and colorectal cancers. Overexpression or genetic amplification of MDMX can lead to impaired p53 activity which promotes cell survival and proliferation in the presence of DNA damage. MDMX has a close connection with MDM2 in these disease contexts as both proteins synergize to inhibit p53 contributing to tumorigenesis. Therapeutic targeting of MDMX and its interaction with MDM2 offers a potential strategy for reinstating p53 activity in cancer treatment.

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

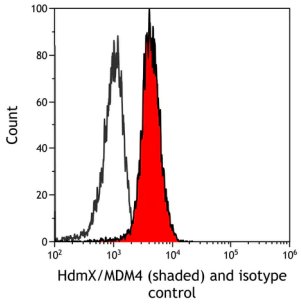
We do not recommend this combination. It is not covered by our product promise.

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.

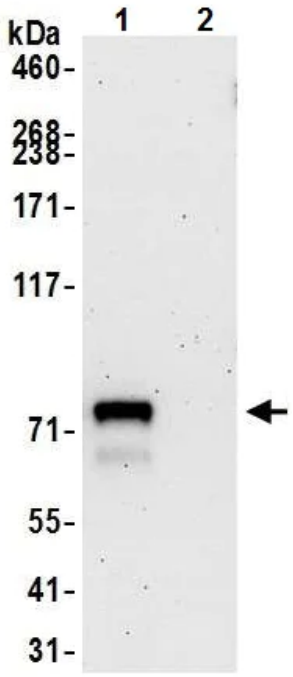
Full details and terms and conditions can be found here:
Terms & Conditions.

4 product images



Flow Cytometry - Anti-MDMX/MDM4 antibody [BL-3-2F2] (ab243859)

Flow cytometry overlay histogram of 4% formaldehyde fixed Jurkat cells permeabilized with 90% methanol labeling MDMX/MDM4 with ab243859 at 1 µl per 1 x 10^6 cells. (shaded) compared with a Isotype control (unshaded). Secondary antibody details, Goat Anti-Rabbit IgG H&L (DyLight® 488) (ab96883).



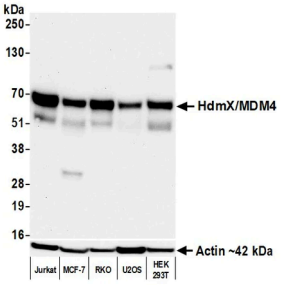
Immunoprecipitation - Anti-MDMX/MDM4 antibody [BL-3-2F2] (ab243859)

MDMX/MDM4 was immunoprecipitated from Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate (1 mg per IP reaction; 20% of IP loaded) using ab243859 at 20µg/mL. Western blot was performed from the immunoprecipitate using ab243859 at 1/100 dilution.
Lane 1: ab243859 IP in Jurkat whole cell lysate.
Lane 2: Control IgG IP.

Chemiluminescence with an exposure time of 75 seconds.

All lanes:
Immunoprecipitation - Anti-MDMX/MDM4 antibody [BL-3-2F2] (ab243859)

Predicted band size: 55 kDa



Western blot - Anti-MDMX/MDM4 antibody [BL-3-2F2] (ab243859)

MDMX/MDM4 Western blot staining using rabbit Anti-MDMX/MDM4 antibody

All lanes:
Western blot - Anti-MDMX/MDM4 antibody [BL-3-2F2] (ab243859) at 1/1000 dilution

Lane 1:
Jurkat whole cell lysate at 50 µg

Lane 2:
MCF-7 whole cell lysate at 50 µg

Lane 3:
RKO whole cell lysate at 50 µg

Lane 4:
U2OS whole cell lysate at 50 µg

Lane 5:
HEK293T whole cell lysate at 50 µg

Secondary

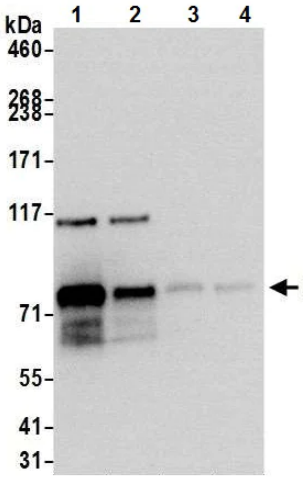
All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051)

Developed using the ECL technique.

Predicted band size: 54 kDa

Observed band size: 70 kDa

Exposure time: 75s



Western blot - Anti-MDMX/MDM4 antibody [BL-3-2F2] (ab243859)

All lanes:
Western blot - Anti-MDMX/MDM4 antibody [BL-3-2F2] (ab243859)

Lane 1:
Jurkat cell lysate

Lane 2:
293T cell lysate

Lane 3:
HeLa cell lysate

Lane 4:
A549 cell lysate

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051)

Predicted band size: 55 kDa

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