abcam

ab251023

Anti-WDR77 antibody [EPR10709(2)] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR10709(2)
Purification technique	Affinity purification Protein A
Concentration	0.956 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-

Notes	-

Expected

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

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

WB

Tested

Species	Rat, Human
Dilution info	-
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Target data

See full target information WDR77

Function	Non-catalytic component of the methylosome complex, composed of PRMT5, WDR77 and CLNS1A, which modifies specific arginines to dimethylarginines in several spliceosomal Sm proteins and histones (PubMed:11756452). This modification targets Sm proteins to the survival of motor neurons (SMN) complex for assembly into small nuclear ribonucleoprotein core particles. Might play a role in transcription regulation. The methylosome complex also methylates the Piwi proteins (PIWIL1, PIWIL2 and PIWIL4), methylation of Piwi proteins being required for the interaction with Tudor domain-containing proteins and subsequent localization to the meiotic nuage (PubMed:23071334).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab251023 is the carrier-free version of ab190361.

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.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

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

Activity summary	WDR77 also known as MEP50 is a protein with a mass of about 37 kDa. It functions as a cofactor involved in methylation processes often forming part of protein complexes with PRMT5. WDR77 locates within the cell nucleus and is widely

	expressed in human tissues with higher levels observed in reproductive organs like the testis and prostate. The protein interacts with other proteins to affect transcription and RNA processing.
Biological function summary	WDR77 interacts with the protein arginine methyltransferase 5 (PRMT5) and contributes to the assembly and stabilization of methyltransferase complexes. This role is essential for its participation in the methylation of arginine residues on histones and other proteins which regulates gene expression. WDR77 influences cell proliferation and differentiation by modulating these processes especially in germ cells and prostate epithelial cells.
Pathways	WDR77 is an important player in the transcriptional repression pathway affecting histone modification. It connects intimately with important pathways like the PI3K/AKT signaling and cell cycle regulation. Through its interaction with PRMT5 WDR77 takes part in regulatory networks impacting gene silencing chromatin remodeling and the overall gene expression mechanism. The involvement of WDR77 in these pathways emphasizes its relationship with PRMT5 and other methylation-associated proteins.
Associated diseases and disorders	WDR77 has links to prostate cancer and lung cancer. These associations may result from its role in cell cycle control and proliferation which becomes dysregulated in oncogenesis. WDR77's interaction with PRMT5 is critical in such conditions as changes in their activity can alter normal cell growth patterns. Research indicates that abnormal expression or function of WDR77 can lead to increased tumorigenesis in specific tissues emphasizing the protein's potential as a target for therapeutic interventions.

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

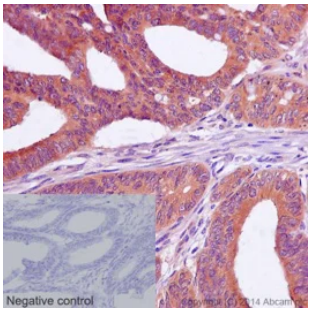
We do not recommend this combination. It is not covered by our product promise.

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

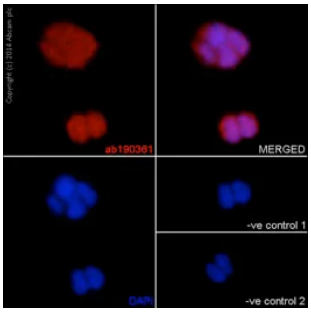


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-WDR77 antibody [EPR10709(2)] - BSA and Azide free (ab251023)

WDR77 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-WDR77 antibody

This data was developed using ab190361, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human adenocarcinoma of the colon labeling WDR77 with ab190361 at 1/50 and HRP polymer for Rabbit IgG. Counterstained with Hematoxylin. Negative control also shown.

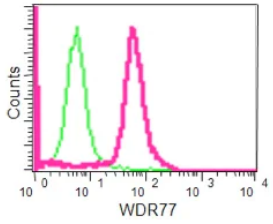
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-WDR77 antibody [EPR10709(2)] - BSA and Azide free (ab251023)

WDR77 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-WDR77 antibody

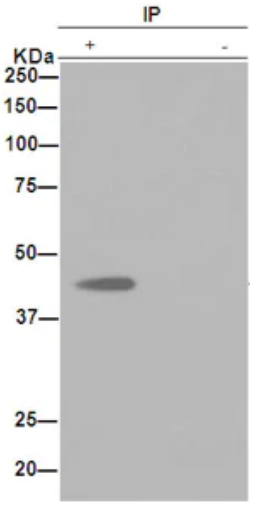
This data was developed using ab190361, the same antibody clone in a different buffer formulation.
Immunofluorescence analysis of A673 cells fixed in 4% paraformaldehyde labeling WDR77 with ab190361 at 1/50 dilution and Goat anti rabbit IgG (Alexa Fluor® 555) 1/200. Counterstained with DAPI. Negative controls also shown.



Flow Cytometry (Intracellular) - Anti-WDR77 antibody [EPR10709(2)] - BSA and Azide free (ab251023)

WDR77 Flow Cytometry (Intracellular) staining using rabbit Anti-WDR77 antibody

This data was developed using ab190361, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of 2% paraformaldehyde fixed HeLa cells labeling WDR77 at 1/70 dilution and Goat anti rabbit IgG (FITC) at 1/150. Rabbit monoclonal IgG used as isotype control.

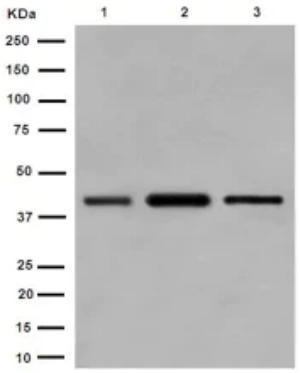


Immunoprecipitation - Anti-WDR77 antibody [EPR10709(2)] - BSA and Azide free (ab251023)

This data was developed using ab190361, the same antibody clone in a different buffer formulation.
Immunoprecipitation of HeLa cells labeling WDR77 with ab190361 at 1/50 and Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/5000 (+) or PBS (-)

All lanes:
Immunoprecipitation - Anti-WDR77 antibody [EPR10709(2)] - BSA and Azide free (ab251023)

Predicted band size: 37 kDa



Western blot - Anti-WDR77 antibody [EPR10709(2)] - BSA and Azide free (ab251023)

This data was developed using ab190361, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-WDR77 antibody [EPR10709(2)] - C-terminal (ab190361) at 1/10000 dilution

Lane 1:
LnCaP cell lysate at 20 µg

Lane 2:
293T cell lysate at 20 µg

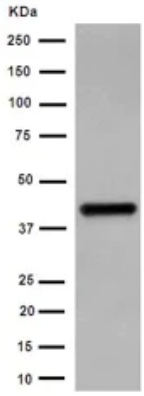
Lane 3:
HeLa cell lysate at 20 µg

Secondary

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

Predicted band size: 37 kDa

Observed band size: 42 kDa



Western blot - Anti-WDR77 antibody [EPR10709(2)] - BSA and Azide free (ab251023)

WDR77 Western blot staining of Saos-2 cell lysate using rabbit Anti-WDR77 antibody

This data was developed using ab190361, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-WDR77 antibody [EPR10709(2)] - C-terminal (ab190361) at 1/1000 dilution

All lanes:
Saos-2 cell lysate at 20 µg

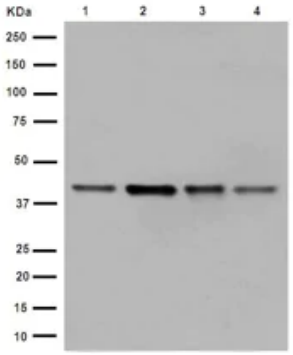
Secondary

All lanes:

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

Predicted band size: 37 kDa

Observed band size: 42 kDa



Western blot - Anti-WDR77 antibody [EPR10709(2)] - BSA and Azide free (ab251023)

WDR77 Western blot staining using rabbit Anti-WDR77 antibody

This data was developed using ab190361, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-WDR77 antibody [EPR10709(2)] - C-terminal (ab190361) at 1/1000 dilution

Lane 1:
C6 cell lysate at 10 µg

Lane 2:
RAW 264.7 cell lysate at 10 µg

Lane 3:
PC-12 cell lysate at 10 µg

Lane 4:
NIH/3T3 cell lysate at 10 µg

Secondary

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

Predicted band size: 37 kDa

Observed band size: 42 kDa

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