abcam

ab154190

Anti-WDR77 antibody [EPR10708(B)]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 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	EPR10708(B)
Purification technique	Affinity purification Protein A
Specificity	The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
Concentration	0.279 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/6000

Notes	**For unpurified use at 1/50 - 1/100.** The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.

Expected

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

IP

Expected

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

WB

Tested

Species	Mouse
Dilution info	1/1000 - 1/10000
Notes	-

Species	Rat
Dilution info	1/1000 - 1/10000
Notes	-

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50 - 1/250
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/30
Notes	For unpurified use at 1/100 - 1/10000. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse, Rat
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	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	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

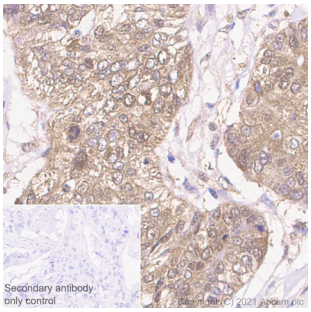
We do not recommend this combination. It is not covered by our product promise.

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.

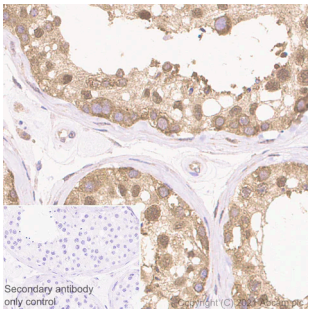
5 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-WDR77 antibody [EPR10708(B)] (ab154190)

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

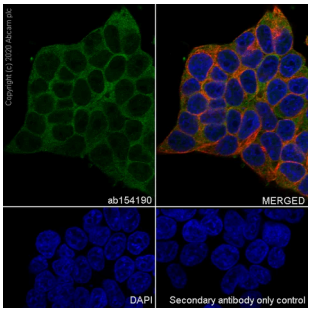
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast cancer tissue sections labeling WDR77 with purified ab154190 at 1/6000 dilution (0.05 µg/mL). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 1 (pH 6.0). Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) secondary antibody was used. PBS instead of the primary antibody was used as the negative control.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-WDR77 antibody [EPR10708(B)] (ab154190)

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

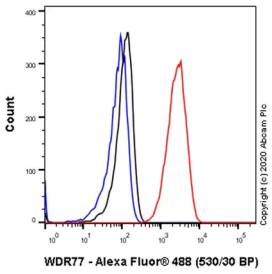
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human testis tissue sections labeling WDR77 with purified ab154190 at 1/6000 dilution (0.05 µg/mL). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 1 (pH 6.0). Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) secondary antibody was used. PBS instead of the primary antibody was used as the negative control.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument



Immunocytochemistry/ Immunofluorescence - Anti-WDR77 antibody [EPR10708(B)] (ab154190)

WDR77 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-WDR77 antibody

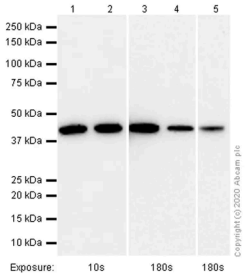
Immunocytochemistry analysis of 293T (Human embryonic kidney epithelial cell) cells labeling WDR77 with purified ab154190 at 1/50 dilution (5.58 µg/mL). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/mL) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-WDR77 antibody [EPR10708(B)] (ab154190)

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

Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling WDR77 with purified ab154190 at 1/30 dilution (10 µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabelled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Western blot - Anti-WDR77 antibody [EPR10708(B)] (ab154190)

All lanes:
Western blot - Anti-WDR77 antibody [EPR10708(B)] (ab154190) at 1/1000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

Lane 2:
HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate

Lane 3:
Mouse spleen lysate

Lane 4:
Mouse kidney lysate

Lane 5:
Rat kidney lysate

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 37 kDa

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