abcam

ab250307

Anti-MMS22L (C6ORF167) antibody [EPR13654] - 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	EPR13654
Purification technique	Affinity purification Protein A
Concentration	1.083 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	-

Notes	-

Expected

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

WB

Tested

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Target data

See full target information MMS22L

Function	Component of the MMS22L-TONSL complex, a complex that promotes homologous recombination-mediated repair of double-strand breaks (DSBs) at stalled or collapsed replication forks (PubMed:21055983, PubMed:21055984, PubMed:21055985, PubMed:21113133, PubMed:26527279, PubMed:27338793,

PubMed:29478807). The MMS22L-TONSL complex is required to maintain genome integrity during DNA replication (PubMed:21055983, PubMed:21055984, PubMed:21055985, PubMed:27797818). It mediates the assembly of RAD51 filaments on single-stranded DNA (ssDNA): the MMS22L-TONSL complex is recruited to DSBs following histone replacement by histone chaperones and eviction of the replication protein A complex (RPA/RP-A) from DSBs (PubMed:21055983, PubMed:21055984, PubMed:21055985, PubMed:29478807). Following recruitment to DSBs, the TONSL-MMS22L complex promotes recruitment of RAD51 filaments and subsequent homologous recombination (PubMed:27797818, PubMed:29478807). Within the complex, MMS22L acts by binding ssDNA (PubMed:27797818).

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

ab250307 is the carrier-free version of ab181047.

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	MMS22L (C6ORF167) is a protein that plays a significant role in DNA damage response and repair. It is also known as a part of a protein complex that ensures genomic stability. MMS22L has a mass of approximately 51 kDa and is found expressed in various tissues notably in those with proliferative capacity such as testis and thymus. This protein becomes active upon DNA replication stress and enhances the stabilization of replication forks.
Biological function summary	MMS22L associates with several other proteins to form the MMS22L-TONSL complex which is critical for repairing DNA double-strand breaks. This complex facilitates homologous recombination repair by assisting in the recruitment of important repair factors. Through its functionality MMS22L plays a critical part in maintaining genomic stability ensuring that cells replicate accurately and efficiently.
Pathways	MMS22L integrates into the homologous recombination repair pathway and the Fanconi anemia pathway. In its activities it collaborates with proteins like TONSL and RAD51 which are central in maintaining the integrity of DNA through accurate repair. These pathways highlight MMS22L’s involvement in repairing DNA damages particularly during the S and G2 phases of the cell cycle.
Associated diseases and disorders	MMS22L has connections to conditions like cancer and Fanconi anemia where genomic instability is a common feature. Dysregulation or mutations affecting MMS22L can impede DNA repair mechanisms thereby contributing to the development of these disorders. In cancer MMS22L's role connects with proteins like BRCA2 highlighting its importance in pathways that when disrupted lead to tumor development and progression.

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.

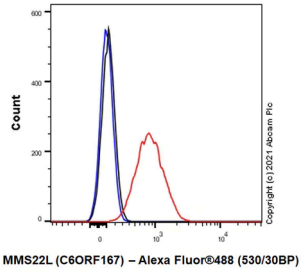
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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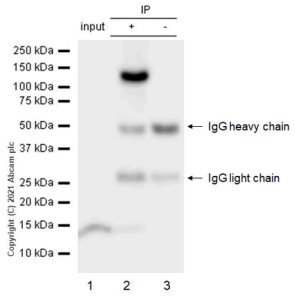
3 product images



Flow Cytometry (Intracellular) - Anti-MMS22L (C6ORF167) antibody [EPR13654] - BSA and Azide free (ab250307)

MMS22L (C6ORF167) Flow Cytometry (Intracellular) staining using rabbit Anti-MMS22L (C6ORF167) antibody

This data was developed using ab250307, the same antibody clone in a different buffer formulation.
Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling MMS22L (C6ORF167) with Purified ab250307 at 1:20 dilution (5 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150081) 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).



Immunoprecipitation - Anti-MMS22L (C6ORF167) antibody [EPR13654] - BSA and Azide free (ab250307)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab181047).
Purified ab181047 at 1:20 dilution (0.5µg) immunoprecipitating MMS22L (C6ORF167) in HeLa whole cell lysate.
Blocking and diluting buffer and concentration: 5% NFDM/TBST.
All lanes:
Immunoprecipitation - Anti-MMS22L (C6ORF167) antibody [EPR13654] (ab181047) at 1/20 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate at 10 µg

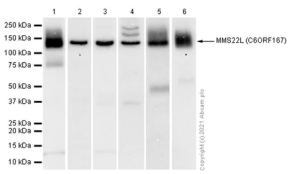
Lane 2:
ab181047 + HeLa whole cell lysate

Lane 3:
Rabbit monoclonal IgG (ab172730) instead of ab181047 in HeLa whole cell lysate

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/1000 dilution

Predicted band size: 142 kDa



Western blot - Anti-MMS22L (C6ORF167) antibody [EPR13654] - BSA and Azide free (ab250307)

MMS22L (C6ORF167) Western blot staining using rabbit Anti-MMS22L (C6ORF167) antibody

All lanes:
Western blot - Anti-MMS22L (C6ORF167) antibody [EPR13654] (ab181047) at 1/1000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
A549 (Human lung carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 3:
LLC1 (Mouse lung carcinoma) whole cell lysate at 20 µg

Lane 4:
Mouse testis lysate at 20 µg

Lane 5:
Mouse spleen lysate at 20 µg

Lane 6:
PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysate at 20 µg

Secondary

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

Predicted band size: 142 kDa

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