abcam

ab186729

Anti-FANCB antibody [EPR15513]

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	EPR15513
Purification technique	Affinity purification Protein A
Concentration	0.68 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/30 - 1/50
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

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

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/120
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information Fanconi anemia group B protein

Function	DNA repair protein required for FANCD2 ubiquitination.

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	FANCB also known as Fanconi anemia group B protein plays an important role in the DNA repair mechanism. This target is part of the Fanconi anemia (FA) protein family and is approximately 101 kDa in mass. FANCB is expressed in various tissues but has a higher presence in those with rapidly dividing cells such as bone marrow and fetal liver. This protein maintains structural stability during DNA replication and repair by performing its mechanical function.
Biological function summary	FANCB interacts with other proteins as part of the FA core complex which includes eight other FA proteins. It facilitates the repair of interstrand DNA crosslinks a critical aspect of maintaining genomic integrity. FANCB contributes to the activation and monoubiquitination of FANCD2 and FANCI forming DNA repair foci necessary for correcting DNA damage. These actions highlight its integral role in genomic stability and stress response.
Pathways	The FANCB protein is part of the Fanconi anemia pathway which coordinates cellular responses to DNA damage. This pathway involves other proteins such as FANCA and FANCC which work together to initiate repair processes. Additionally FANCB contributes to the homologous recombination repair pathway by interacting with proteins like BRCA1 and RAD51 essential for repairing double-strand breaks in DNA providing a backup mechanism when routine repair mechanisms are stressed.
Associated diseases and disorders	FANCB mutations can lead to Fanconi anemia a rare genetic disorder characterized by bone marrow failure and increased cancer risk. This protein along with FANCA and FANCJ influences the progression and severity of this condition. Moreover FANCB mutations have connections to certain cancers as they may contribute to genetic instability driving uncontrolled cell growth. These associations highlight the importance of understanding FANCB function to develop therapies targeting related diseases.

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

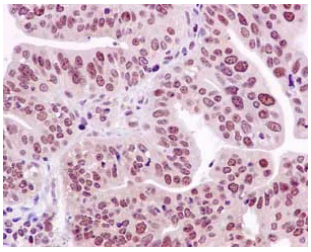
We do not recommend this combination. It is not covered by our product promise.

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.

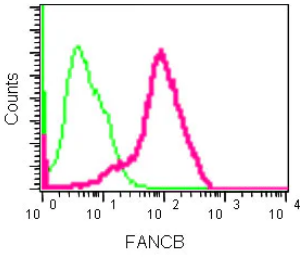
4 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FANCB antibody [EPR15513] (ab186729)

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

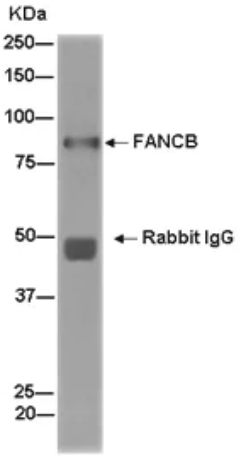
Immunohistochemical analysis of paraffin-embedded Human endometrial adenocarcinoma tissue labeling FANCB with ab186729 at 1/500 dilution. A Ready to use HRP Polymer for Rabbit IgG (prediluted) was used as secondary. Counter stained with Hematoxylin.
Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-FANCB antibody [EPR15513] (ab186729)

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

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed293 cells labeling FANCB with ab186729 at 1/120 dilution, compared to a Rabbit monclonal IgG isotype control. A Goat anti rabbit IgG (FITC) at 1/150 dilution was used as secondary antibody.

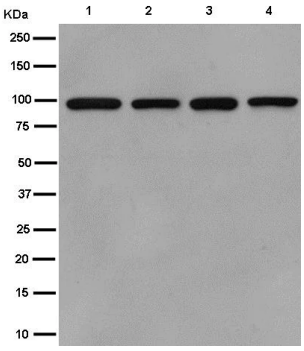


Immunoprecipitation - Anti-FANCB antibody [EPR15513] (ab186729)

Western blot analysis of FANCB in 293T cell lysate immunoprecipitated with ab186729 at 1/50 dilution
Secondary antibody: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution.

All lanes:
Immunoprecipitation - Anti-FANCB antibody [EPR15513] (ab186729)

Predicted band size: 98 kDa



Western blot - Anti-FANCB antibody [EPR15513] (ab186729)

All lanes:
Western blot - Anti-FANCB antibody [EPR15513] (ab186729)

Lane 1:
HeLa cell lysate at 20 µg

Lane 2:
A549 cell lysate at 20 µg

Lane 3:
293T cell lysate at 20 µg

Lane 4:
U87-MG cell lysate at 20 µg

Secondary

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

Predicted band size: 98 kDa

Observed band size: 98 kDa

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