abcam

ab188577

Anti-PRPF31 antibody [EPR14587]

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	EPR14587
Purification technique	Affinity purification Protein A
Concentration	1.323 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

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	1/250
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/240
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

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

Target data

See full target information PRPF31

Function	Involved in pre-mRNA splicing as component of the spliceosome (PubMed:11867543, PubMed:20118938, PubMed:28781166). Required for the

assembly of the U4/U5/U6 tri-snRNP complex, one of the building blocks of the spliceosome (PubMed:11867543).

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	PRPF31 also known as pre-mRNA processing factor 31 is an important component of the spliceosomal complex. It weights approximately 56 kDa. This protein is expressed in various tissues with prominence in the retina. It plays a critical role in the assembly of the spliceosome by interacting with other splicing factors essential for processing pre-mRNA into mature mRNA.
Biological function summary	PRPF31 is involved in RNA splicing a process fundamental for gene expression. It forms part of the U4/U6-U5 snRNP complex which is responsible for catalyzing the

	splicing of pre-mRNA. PRPF31 facilitates the rearrangement of RNA and protein components within the spliceosome ensuring accurate splicing and removal of introns.
Pathways	The protein plays a role in the spliceosome pathway and genetic information processing. PRPF31 interacts with other splicing factors like PRPF6 and SNRNP200 within these pathways. Its activity is important for maintaining the fidelity and efficiency of spliceosome assembly and function linking gene regulation and expression to various cellular responses.
Associated diseases and disorders	Mutations in PRPF31 lead to autosomal dominant retinitis pigmentosa a progressive retinal disorder. This condition connects PRPF31 to other retinal proteins like RP9. Its dysfunction disrupts normal splicing activities causing photoreceptor cell degeneration and vision loss. Understanding PRPF31's role provides insight into therapeutic targets for retinal 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

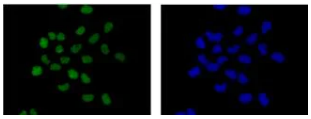
We do not recommend this combination. It is not covered by our product promise.

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.

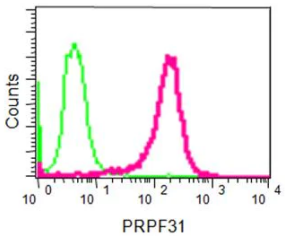
5 product images



Immunocytochemistry/ Immunofluorescence - Anti-PRPF31 antibody [EPR14587] (ab188577)

PRPF31 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-PRPF31 antibody

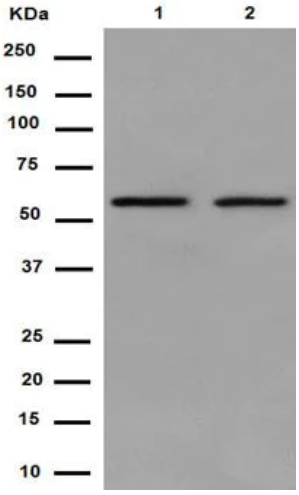
Immunofluorescence analysis of paraformaldehyde-fixed HeLa cells labeling PRPF31 with ab188577 at a 1/250 dilution. As secondary antibody goat anti-rabbit IgG (Alexa Fluor®488) was used at a 1/200. In blue DAPI staining.



Flow Cytometry (Intracellular) - Anti-PRPF31 antibody [EPR14587] (ab188577)

PRPF31 Flow Cytometry (Intracellular) staining using rabbit Anti-PRPF31 antibody

Intracellular Flow Cytometry analysis of paraformaldehyde-fixed HeLa cells labeling PRPF31 with ab188577 at a 1/240 dilution and secondary antibody goat anti-rabbit IgG (FITC, red) at a 1/150 dilution, or negative control rabbit IgG (green).



Western blot - Anti-PRPF31 antibody [EPR14587] (ab188577)

All lanes:
Western blot - Anti-PRPF31 antibody [EPR14587] (ab188577) at 1/10000 dilution

Lane 1:
HeLa cell lysate at 20 µg

Lane 2:
Jurkat cell lysate at 20 µg

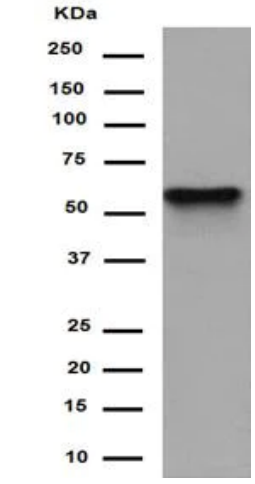
Secondary

All lanes:
goat anti-rabbit IgG, (H+L), peroxidase conjugated at 1/1000 dilution

Developed using the ECL technique.

Predicted band size: 55 kDa

Observed band size: 55 kDa



Western blot - Anti-PRPF31 antibody [EPR14587] (ab188577)

PRPF31 Western blot staining of Rat spleen tissue lysate using rabbit Anti-PRPF31 antibody

All lanes:
Western blot - Anti-PRPF31 antibody [EPR14587] (ab188577) at 1/1000 dilution

All lanes:
Rat spleen tissue lysate at 10 µg

Secondary

All lanes:
goat anti-rabbit IgG, (H+L), peroxidase conjugated at 1/1000 dilution

Developed using the ECL technique.

Predicted band size: 55 kDa

Observed band size: 55 kDa

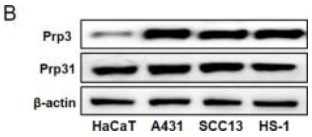


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Western blot - Anti-PRPF31 antibody [EPR14587] (ab188577)

PRPF31 Western blot staining using rabbit Anti-PRPF31 antibody

PRPF31 western blot using anti-PRPF31 antibody [EPR14587] ab188577. Publication image and figure legend from Zuo, S., Li, X., et al., 2020, Sci Rep, PubMed 32483193.

ab188577 was used in this publication in western blot. This may not be the same as the application(s) guaranteed by Abcam. For a full list of applications guaranteed by Abcam for ab188577 please see the product overview.

The expression of PRP3 is increased in cSCC cells and tissues. (A) PRP3 mRNA expression in cSCC cells compared with benign epidermal keratinocyte cells. (B) PRP3 protein expression in cSCC cells compared with benign epidermal keratinocyte cells. (C) Relative protein expression of PRP3 in cSCC cells versus benign epidermal keratinocyte cells. (D) PRP3 protein expression in cSCC tissues was examined via western-blot. (E) PRP3 protein expression in normal human skin, AK, cSCCs in situ and sporadic cSCCs tissues were explored via IHC. (F) High PRP3 expression is associated with poor prognosis in cSCCs patients. *p < 0.05, **p < 0.01. PRP3, pre-mRNA processing factor 3.

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