abcam

ab198296

Anti-SNRPD2 antibody [EPR16762]

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	EPR16762
Purification technique	Affinity purification Protein A
Concentration	1.756 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	Mouse
Dilution info	1/2000
Notes	-

Species	Rat
Dilution info	1/2000
Notes	-

Species	Human
Dilution info	1/2000
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/150
Notes	-

Expected

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

IHC-P

Tested

Species	Rat
Dilution info	1/600
Notes	-

Species	Human
Dilution info	1/600
Notes	-

Expected

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

Target data

See full target information SNRPD2

Function	Plays a role in pre-mRNA splicing as a core component of the spliceosomal U1, U2, U4 and U5 small nuclear ribonucleoproteins (snRNPs), the building blocks of the spliceosome (PubMed:11991638, PubMed:18984161, PubMed:19325628, PubMed:23333303, PubMed:25555158, PubMed:26912367, PubMed:28076346, PubMed:28502770, PubMed:28781166, PubMed:32494006). Component of both the pre-catalytic spliceosome B complex and activated spliceosome C complexes (PubMed:11991638, PubMed:28076346, PubMed:28502770, PubMed:28781166). As a component of the minor spliceosome, involved in the splicing of U12-type introns in pre-mRNAs (PubMed:15146077).

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	The small nuclear ribonucleoprotein D2 (SNRPD2) also known as Sm-D2 is a component of the spliceosomal small nuclear ribonucleoproteins (snRNP) essential for pre-mRNA splicing. It has a molecular weight of approximately 14 kDa and is ubiquitously expressed in various tissues highlighting its significant function across different cell types. SNRPD2 is part of the Sm protein family which plays an important role in the assembly and function of spliceosomal snRNPs.
Biological function summary	SNRPD2 participates in the formation of the spliceosomal core necessary for the removal of introns from pre-mRNA which is important for generating mature mRNA transcripts. This protein is a part of the spliceosome complex consisting of other snRNPs and numerous accessory proteins. SNRPD2's involvement in mRNA processing highlights its fundamental role in gene expression regulation affecting how cells translate genetic information into functional proteins.
Pathways	SNRPD2 is a critical element in the spliceosome pathway a major route for the post-transcriptional modification of RNA. This pathway is integral to the regulation of alternative splicing events influencing protein diversity. SNRPD2 also interacts with other spliceosomal proteins such as SNRPB and SNRPE cooperating to facilitate precise exon-exon junctions. The fidelity of this pathway depends substantially on the integrity and functionality of SNRPD2 alongside its protein partners.

Associated diseases and disorders	SNRPD2 shows a connection to autoimmune conditions such as systemic lupus erythematosus (SLE) where autoantibodies target snRNP components including SNRPD2. This autoimmune disorder may disrupt normal spliceosomal function contributing to disease pathology. Additionally alterations in splicing pathways involving SNRPD2 have links to certain cancers where dysregulated splicing can lead to oncogenic transformations. Understanding SNRPD2's role in these conditions may reveal therapeutic targets for modulating splicing in disease contexts.

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

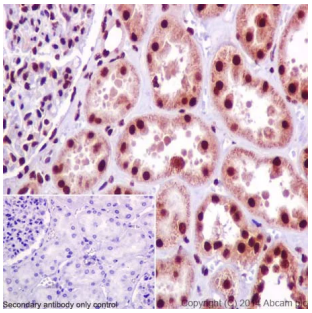
We do not recommend this combination. It is not covered by our product promise.

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.

6 product images



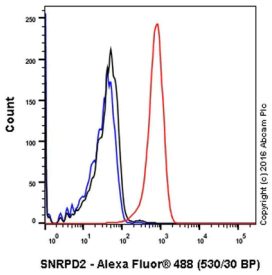
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SNRPD2 antibody [EPR16762] (ab198296)

SNRPD2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-SNRPD2 antibody

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling SNRPD2 with ab198296 at 1/600 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Cytoplasm and nucleus staining on Human kidney tissue is observed. Counter stained with Hematoxylin.

Negative control Using PBS instead of primary antbody secondary ab is Goat Anti-Rabbit IgG H&L (HRP)

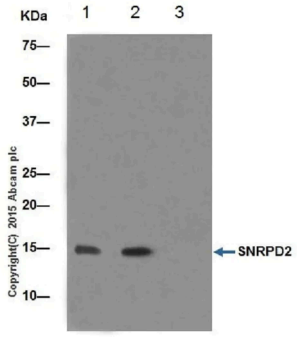
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-SNRPD2 antibody [EPR16762] (ab198296)

SNRPD2 Flow Cytometry (Intracellular) staining using rabbit Anti-SNRPD2 antibody

Intracellular Flow Cytometry analysis of HeLa cells labelling SNRPD2 (red) with purified ab198296 at dilution of 1/150. The secondary antibody used was Alexa Fluorr® 488 goat-anti-rabbit IgG (1/2000). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Isotype control antibody was Rabbit monoclonal IgG (black). The blue line shows cells without incubation with primary antibody and secondary antibody.



Immunoprecipitation - Anti-SNRPD2 antibody [EPR16762] (ab198296)

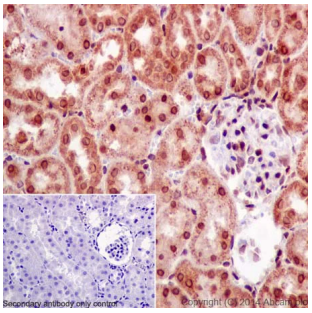
NRPD2 protein was immunoprecipitation from 1mg of MCF-7 (Human breast adenocarcinoma) whole cell lysate with ab198296 at 1/100 dilution. Western blot was performed from the immunoprecipitate using ab198296 at 1/1000 dilution. Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG, was used as secondary antibody at 1/1000 dilution. Lane 1: Input, MCF-7 (Human breast adenocarcinoma) whole cell lysate, 10ug. Lane 2: IP of NRPD2 from MCF-7 (Human breast adenocarcinoma) whole cell lysate. Lane 3: IP using Rabbit monoclonal IgG (ab172730) instead of ab198296 in MCF-7 (Human breast adenocarcinoma) whole cell lysate.
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

All lanes:
Immunoprecipitation - Anti-SNRPD2 antibody [EPR16762] (ab198296)

Predicted band size: 14 kDa

Observed band size: 14 kDa

Exposure time: 5s

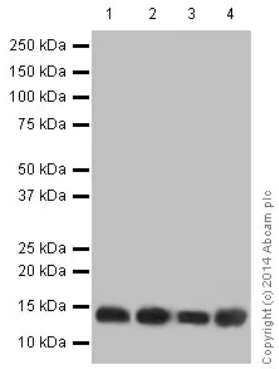


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SNRPD2 antibody [EPR16762] (ab198296)

SNRPD2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-SNRPD2 antibody

Immunohistochemical analysis of paraffin-embedded Rat kidney tissue labeling SNRPD2 with ab198296 at 1/600 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Cytoplasm and nucleus staining on Rat kidney tissue is observed. Counter stained with Hematoxylin.
Negative control Using PBS instead of primary antbody secondary ab is Goat Anti-Rabbit IgG H&L (HRP)

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



Western blot - Anti-SNRPD2 antibody [EPR16762] (ab198296)

SNRPD2 Western blot staining using rabbit Anti-SNRPD2 antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-SNRPD2 antibody [EPR16762] (ab198296) at 1/20000 dilution

Lane 1:
HepG2 cell lysate at 20 µg

Lane 2:
MCF7 cell lysate at 20 µg

Lane 3:
A549 cell lysate at 20 µg

Lane 4:
HeLa cell lysate at 20 µg

Secondary

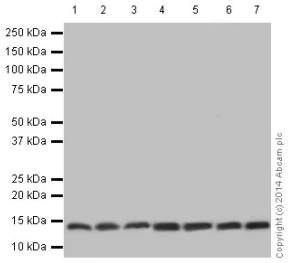
All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution

Developed using the ECL technique.

Predicted band size: 14 kDa

Observed band size: 14 kDa

Exposure time: 30s



Western blot - Anti-SNRPD2 antibody [EPR16762] (ab198296)

Blocking/Dilution buffer: 5% NFDM/TBST.
Lanes 1 - 6:
Western blot - Anti-SNRPD2 antibody [EPR16762] (ab198296) at 1/2000 dilution

Lane 7:
Western blot - Anti-SNRPD2 antibody [EPR16762] (ab198296) at 1/20000 dilution

Lane 1:
Mouse brain lysate at 10 µg

Lane 2:
Mouse spleen lysate at 10 µg

Lane 3:
Rat brain lysate at 10 µg

Lane 4:
Rat spleen lysate at 10 µg

Lane 5:
C6 cell lysate at 10 µg

Lane 6:
RAW 264.7 cell lysate at 10 µg

Lane 7:
PC12 cell lysate at 10 µg

Secondary

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

Developed using the ECL technique.

Predicted band size: 14 kDa

Observed band size: 14 kDa

Exposure time: 30s

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