abcam

ab197591

Anti-U2AF35/U2AF1 antibody [EPR12648(2)]

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	EPR12648(2)
Purification technique	Affinity purification Protein A
Concentration	1.024 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Rat
Dilution info	1/1000
Notes	-

Species	Human

Dilution info	1/1000
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

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

Predicted

Species	Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/170

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	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Rat
Dilution info	1/100 - 1/250
Notes	-

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information U2AF1

Function	Plays a critical role in both constitutive and enhancer-dependent splicing by mediating protein-protein interactions and protein-RNA interactions required for accurate 3'-splice site selection. Recruits U2 snRNP to the branch point. Directly mediates interactions between U2AF2 and proteins bound to the enhancers and thus may function as a bridge between U2AF2 and the enhancer complex to recruit it to the adjacent intron.

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	U2AF35 also known as U2AF1 is a protein weighing approximately 35 kDa. It interacts importantly in the pre-mRNA splicing process where it binds to the 3' splice site of introns. The protein is a subunit of the U2 auxiliary factor and its expression occurs across various tissues with particular concentrations in the

	developmental stages of tissues and in dynamic cellular environments. U2AF35 functions by recognizing the AG dinucleotide at the 3' end of introns a task critical for the accurate splicing of precursor mRNA.
Biological function summary	This protein plays an important role in the removal of introns from pre-mRNA impacting the processing of mRNA which ultimately affects gene expression. U2AF35 is a component of the spliceosome complex particularly influencing the recruitment of U2 small nuclear ribonucleoprotein (snRNP) to the branch point. The activity of U2AF35 ensures proper mRNA maturation which is essential in controlling the flow of genetic information from DNA to protein synthesis. It also contributes to the alternative splicing allowing cells to produce diverse protein isoforms from a single gene.
Pathways	U2AF35 is critically involved in the mRNA splicing pathway and the regulation of alternative splicing events. U2AF35 partners with another subunit U2AF65 in the spliceosome to facilitate these processes. It actively connects with several other proteins within the spliceosome machinery including SF3b and SF3a complexes. The interaction between U2AF35 and these elements ensures the correct assembly of the spliceosome directly influencing the pathway governing pre-mRNA processing.
Associated diseases and disorders	Mutations in the U2AF35 gene can result in specific types of cancer such as myelodysplastic syndromes (MDS) where abnormal splicing patterns occur. Such mutations often affect the interaction of U2AF35 with other splicing factors like SF3B1. Additionally alterations in U2AF35 have associations with lung adenocarcinoma where changes in the mRNA splicing landscape empower cancer progression and malignancy. Understanding its role in splicing provides insight into how disruptions can lead to disease development.

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

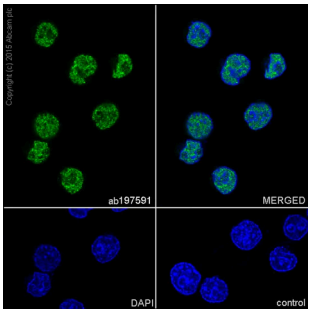
We do not recommend this combination. It is not covered by our product promise.

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.

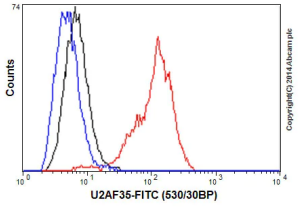
7 product images



Immunocytochemistry/ Immunofluorescence - Anti-U2AF35/U2AF1 antibody [EPR12648(2)] (ab197591)

U2AF35/U2AF1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-U2AF35/U2AF1 antibody

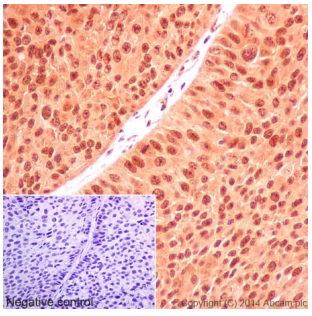
Immunocytochemistry/Immunofluorescence analysis of RAMOS cells labelling U2AF35/U2AF1 with ab197591 at 1/500. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077 an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody.
Control: PBS only.
Nuclear counter stain: DAPI.



Flow Cytometry (Intracellular) - Anti-U2AF35/U2AF1 antibody [EPR12648(2)] (ab197591)

U2AF35/U2AF1 Flow Cytometry (Intracellular) staining using rabbit Anti-U2AF35/U2AF1 antibody

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed Ramos (Human Burkitt's lymphoma)cells labeling U2AF35/U2AF1 with ab197591 at 1/170 dilution (red) compared with a rabbit monoclonal IgG isotype control (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (FITC) at 1/150 dilution was used as the secondary antibody.

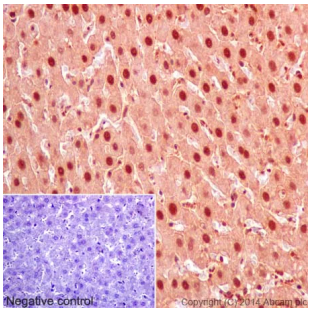


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-U2AF35/U2AF1 antibody [EPR12648(2)] (ab197591)

U2AF35/U2AF1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-U2AF35/U2AF1 antibody

Immunohistochemical analysis of paraffin-embedded Human transitional cell carcinoma of bladder tissue labeling U2AF35/U2AF1 with ab197591 at 1/250 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) secondary antibody at 1/500 dilution. Cytoplasm and nuclear staining on Human transitional cell carcinoma of bladder tissue is observed. Counter stained with Hematoxylin.
Negative control: Used PBS instead of primary antibody secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

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

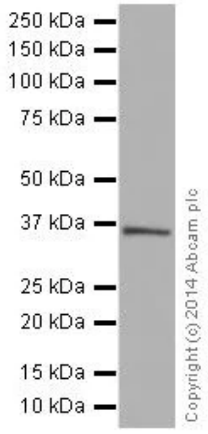


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-U2AF35/U2AF1 antibody [EPR12648(2)] (ab197591)

U2AF35/U2AF1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-U2AF35/U2AF1 antibody

Immunohistochemical analysis of paraffin-embedded Rat liver tissue labeling U2AF35/U2AF1 with ab197591 at 1/250 dilution followed by Goat Anti-Rabbit IgG H&L (HRP)(ab97051) secondary antibody at 1/500 dilution. Cytoplasm and nuclear staining on rat liver tissue is observed. Counter stained with Hematoxylin.
Negative control: Used PBS instead of primary antibody secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

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



Western blot - Anti-U2AF35/U2AF1 antibody [EPR12648(2)] (ab197591)

U2AF35/U2AF1 Western blot staining of Ramos (Human Burkitt's lymphoma cell line) whole cell lysate using rabbit Anti-U2AF35/U2AF1 antibody

Blocking/dilution buffer: 5% NFDM/TBST.
The observed MW is consistent with what has been described in the literature PMID:1388271.

All lanes:
Western blot - Anti-U2AF35/U2AF1 antibody [EPR12648(2)] (ab197591) at 1/10000 dilution

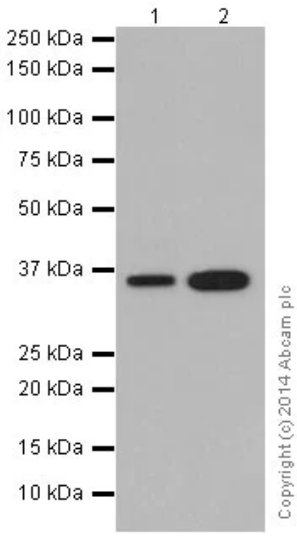
All lanes:
Ramos (Human Burkitt's lymphoma cell line) whole cell lysate at 10 µg

Secondary

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

Predicted band size: 28 kDa

Observed band size: 35 kDa



Western blot - Anti-U2AF35/U2AF1 antibody [EPR12648(2)] (ab197591)

U2AF35/U2AF1 Western blot staining using rabbit Anti-U2AF35/U2AF1 antibody

Blocking/dilution buffer: 5% NFDM/TBST.
The observed MW is consistent with what has been described in the literature PMID:1388271.

All lanes:
Western blot - Anti-U2AF35/U2AF1 antibody [EPR12648(2)] (ab197591) at 1/20000 dilution

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

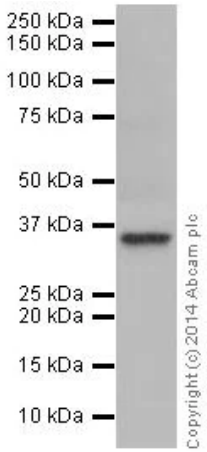
Lane 2:
293 (Human embryonic kidney) whole cell lysate at 10 µg

Secondary

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

Predicted band size: 28 kDa

Observed band size: 35 kDa



Western blot - Anti-U2AF35/U2AF1 antibody [EPR12648(2)] (ab197591)

U2AF35/U2AF1 Western blot staining of Rat spleen lysate using rabbit Anti-U2AF35/U2AF1 antibody

Blocking/dilution buffer: 5% NFDM/TBST.
The observed MW is consistent with what has been described in the literature PMID:1388271

All lanes:
Western blot - Anti-U2AF35/U2AF1 antibody [EPR12648(2)] (ab197591) at 1/1000 dilution

All lanes:
Rat spleen lysate at 10 µg

Secondary

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

Predicted band size: 28 kDa

Observed band size: 35 kDa

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