abcam

ab201454

Anti-RPS8 antibody [EPR17334]

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	EPR17334
Purification technique	Affinity purification Protein A
Concentration	0.857 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/50
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	-

ICC/IF

Tested

Species	Human
Dilution info	1/600
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/250
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

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

Target data

See full target information RPS8

Function	Component of the small ribosomal subunit (PubMed:23636399). The ribosome is a large ribonucleoprotein complex responsible for the synthesis of proteins in the cell (PubMed:23636399). Part of the small subunit (SSU) processome, first precursor of the small eukaryotic ribosomal subunit. During the assembly of the SSU processome in the nucleolus, many ribosome biogenesis factors, an RNA chaperone and ribosomal proteins associate with the nascent pre-rRNA and work in concert to generate RNA folding, modifications, rearrangements and cleavage as well as targeted degradation of pre-ribosomal RNA by the RNA exosome (PubMed:34516797).

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	Ribosomal protein S8 (RPS8) also known as S8 is a component of the small 40S subunit of the eukaryotic ribosome. This protein has a mass of approximately 20 kDa and is widely expressed in most tissues reflecting its fundamental role in cellular processes. RPS8 belongs to the ribosomal protein S8P family and plays a mechanical role in the assembly and function of the ribosome where it contributes to protein synthesis by facilitating mRNA translation.
Biological function summary	Ribosomal protein S8 is fundamental in translation an essential cellular process that translates mRNA sequences into polypeptide chains. As part of the ribosomal 40S subunit RPS8 aids in the initiation of translation by interacting with other ribosomal proteins and rRNA to form a functional ribosome. This subunit along with the 60S large subunit comprises the active ribosome complex engaged in translating genetic information into the proteome.
Pathways	RPS8 is involved in the protein synthesis pathway a critical driver of cellular proliferation and metabolism. It participates actively in the mRNA surveillance pathway ensuring the efficiency and accuracy of translation. It interacts with other proteins such as RPS6 and RPS14 which are also constituents of the small ribosomal subunit acting synergistically to regulate the efficacy of the translation process. Moreover RPS8 involvement in the ribosome biogenesis pathway emphasizes its integral role in cellular growth and division.
Associated diseases and disorders	Alterations in ribosomal protein S8 are connected to ribosomopathies a group of disorders characterized by defective ribosome function. Dysregulation or mutations in RPS8 can lead to Diamond-Blackfan anemia a rare congenital disorder causing impaired erythropoiesis. Additionally RPS8 has correlations with cancer where aberrant expression levels contribute to tumorigenesis. In cancer RPS8 might interact with oncogenic proteins such as MYC heightening the proliferative potential of cancer cells.

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.

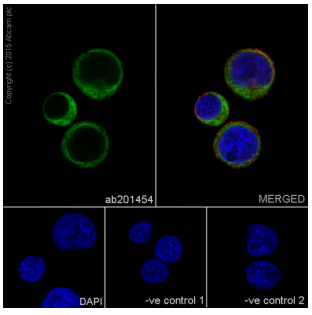
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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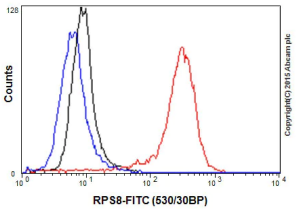
7 product images



Immunocytochemistry/ Immunofluorescence - Anti-RPS8 antibody [EPR17334] (ab201454)

RPS8 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-RPS8 antibody

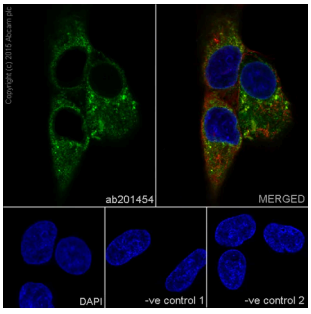
Immunofluorescent analysis of 4% paraformaldehyde-fixed 0.1% Triton-X100 permeabilized Jurkat (Human T cell leukemia cells from peripheral blood) cells labeling RPS8 with ab201454 at 1/600 dilution followed by AlexaFluor®488 Goat anti-Rabbit secondary antibody (ab150077) at 1/500 dilution (green). Confocal image showing cytoplasmic staining on Jurkat cell line. The nuclear counter stain is DAPI (blue). Tubulin is stained with ab7291 anti-Tubulin (mouse mAb) at 1/1000 dilution followed by AlexaFluor®594 Goat anti-Mouse secondary antibody (ab150120) at 1/500 dilution (red).
-ve control 1: ab201454 at 1/600 dilution followed by AlexaFluor®594 Goat anti-Mouse secondary antibody (ab150120) at 1/500 dilution.
-ve control 2: ab7291 anti-Tubulin (mouse mAb) at 1/1000 dilution followed by AlexaFluor®488 Goat anti-Rabbit secondary antibody (ab150077) at 1/500 dilution.



Flow Cytometry (Intracellular) - Anti-RPS8 antibody [EPR17334] (ab201454)

RPS8 Flow Cytometry (Intracellular) staining using rabbit Anti-RPS8 antibody

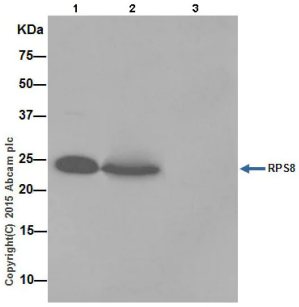
Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed A549 (Human lung carcinoma) cells labeling RPS8 with ab201454 at 1/250 dilution (red) compared with a rabbit monoclonal IgG isotype control (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (FITC) at 1/150 dilution was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-RPS8 antibody [EPR17334] (ab201454)

RPS8 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-RPS8 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed 0.1% Triton-X100 permeabilized A549 (Human lung carcinoma) cells labeling RPS8 with ab201454 at 1/600 dilution followed by AlexaFluor®488 Goat anti-Rabbit secondary antibody (ab150077) at 1/500 dilution (green). Confocal image showing cytoplasmic staining on A549 cell line. The nuclear counter stain is DAPI (blue). Tubulin is stained with ab7291 anti-Tubulin (mouse mAb) at 1/1000 dilution followed by AlexaFluor®594 Goat anti-Mouse secondary antibody (ab150120) at 1/500 dilution (red).
-ve control 1: ab201454 at 1/600 dilution followed by AlexaFluor®594 Goat anti-Mouse secondary antibody (ab150120) at 1/500 dilution.
-ve control 2: ab7291 anti-Tubulin (mouse mAb) at 1/1000 dilution followed by AlexaFluor®488 Goat anti-Rabbit secondary antibody (ab150077) at 1/500 dilution.



Immunoprecipitation - Anti-RPS8 antibody [EPR17334] (ab201454)

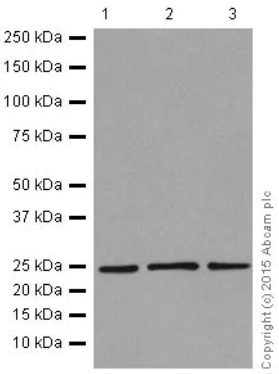
RPS8 was immunoprecipitated from 1mg of HEK293 (Human embryonic kidney) whole cell lysate with ab201454 at 1/50 dilution. Western blot was performed from the immunoprecipitate using ab201454 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1/1500 dilution.
Lane 1: HEK293 whole cell lysate 10 µg (Input). Lane 2: ab201454 IP in HEK293 whole cell lysate. Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab201454 in HEK293 whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 10 seconds.

All lanes:
Immunoprecipitation - Anti-RPS8 antibody [EPR17334] (ab201454)

Predicted band size: 24 kDa



Western blot - Anti-RPS8 antibody [EPR17334] (ab201454)

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-RPS8 antibody [EPR17334] (ab201454) at 1/10000 dilution

Lane 1:
Jurkat (Human T cell leukemia cells from peripheral blood) whole cell lysate at 20 µg

Lane 2:
HEK293 (Human embryonic kidney) whole cell lysate at 20 µg

Lane 3:
A549 (Human lung carcinoma) whole cell lysate at 20 µg

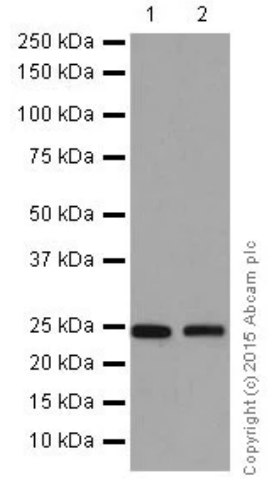
Secondary

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

Predicted band size: 24 kDa

Observed band size: 24 kDa

Exposure time: 10s



Western blot - Anti-RPS8 antibody [EPR17334] (ab201454)

RPS8 Western blot staining using rabbit Anti-RPS8 antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-RPS8 antibody [EPR17334] (ab201454) at 1/10000 dilution

Lane 1:
Human cerebellum lysate at 10 µg

Lane 2:
Human pancreas lysate at 10 µg

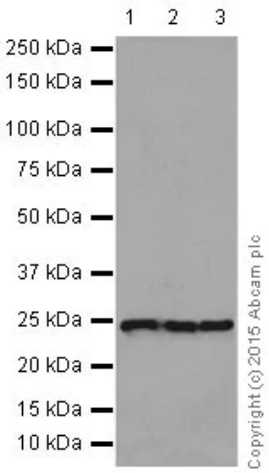
Secondary

All lanes:
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 24 kDa

Observed band size: 24 kDa

Exposure time: 10s



Western blot - Anti-RPS8 antibody [EPR17334] (ab201454)

RPS8 Western blot staining using rabbit Anti-RPS8 antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-RPS8 antibody [EPR17334] (ab201454) at 1/2000 dilution

Lane 1:
C6 (Rat glial tumor cells) whole cell lysate at 10 µg

Lane 2:
RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) whole cell lysate at 10 µg

Lane 3:
PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysate at 10 µg

Secondary

All lanes:
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 24 kDa

Observed band size: 24 kDa

Exposure time: 10s

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