abcam

ab240081

Anti-RPS20 antibody [EPR8716] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR8716
Purification technique	Affinity purification Protein A
Dissociation constant	2.51 x 10^{-10} M
Concentration	1.017 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-

Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information RPS20

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).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab240081 is the carrier-free version of ab133776.

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.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	RPS20 also known as Ribosomal Protein S20 is a component of the ribosome with a molecular weight of approximately 13 kDa. It operates within the small 40S subunit of the ribosome and plays an important role in protein synthesis by facilitating translation. RPS20 shows expression mainly in the cytosol and nucleus of cells where ribosome assembly and function occur.
Biological function summary	This ribosomal protein contributes to accurate translation and assists in the binding of tRNA and mRNA to the ribosome. RPS20 is an essential part of the ribosomal complex that influences the fidelity and efficiency of protein synthesis. Any alterations in ribosomal protein components like RPS20 can lead to downstream effects on protein production impacting cellular processes such as growth and differentiation.
Pathways	The activity of RPS20 is associated with the ribosome biogenesis and translation pathways which are central to cellular protein synthesis. It closely interacts with other ribosomal proteins such as RPS19 and RPS21 within these pathways to ensure proper ribosome assembly and function. This interplay maintains the balance of protein synthesis influencing cellular metabolism and overall homeostasis.
Associated diseases and disorders	Mutations or dysregulation in RPS20 are linked to certain forms of ribosomopathies such as Diamond-Blackfan anemia. This disorder is characterized by impaired red blood cell production where ribosomal protein mutations disrupt normal erythropoiesis. RPS20's connection to ribosomopathies also relates to other ribosomal proteins like RPL11 which share involvement in similar pathways and disorders.

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

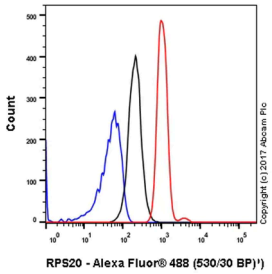
We do not recommend this combination. It is not covered by our product promise.

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.

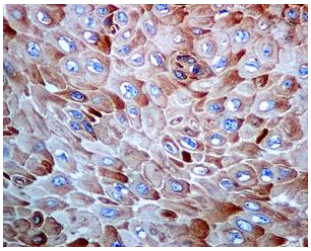
3 product images



Flow Cytometry (Intracellular) - Anti-RPS20 antibody [EPR8716] - BSA and Azide free (ab240081)

RPS20 Flow Cytometry (Intracellular) staining using rabbit Anti-RPS20 antibody

Intracellular Flow Cytometry analysis of A431cells (human epidermoid carcinoma) labeling RPS20 with purified ab133776 at 1/250 dilution (10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) (ab150077) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) (ab172730) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133776).

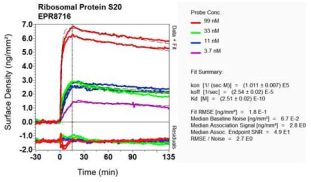


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RPS20 antibody [EPR8716] - BSA and Azide free (ab240081)

RPS20 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-RPS20 antibody

Immunohistochemical analysis of paraffin-embedded human cervical carcinoma tissue labelling RPS20 using ab133776 at 1/100 dilution
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133776).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



OI-RD Scanning - Anti-RPS20 antibody [EPR8716] - BSA and Azide free (ab240081)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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