abcam

ab175219

Anti-RPS12 antibody [EPR10963]

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	EPR10963
Purification technique	Affinity purification Protein A
Concentration	0.275 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	-

Expected

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

WB

Tested

Species	Human
Dilution info	1/1000 - 1/5000
Notes	-

Species	Mouse
Dilution info	1/1000 - 1/5000
Notes	-

Species	Rat
Dilution info	1/1000 - 1/5000
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
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 RPS12

Function 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). Subunit of the 40S ribosomal complex (By similarity).

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	RPS12 also known as Ribosomal Protein S12 is a component of the 40S ribosomal subunit. It has a molecular mass of approximately 14 kDa. This protein plays an important role in the synthesis of proteins by helping to translate messenger RNA into polypeptides. It is expressed widely in human tissues indicating its fundamental role in cellular function. RPS12 is an integral part of ribosome structure and functionality contributing to the assembly and stability of the ribosomes.
Biological function summary	Ribosomal Protein S12 is involved in forming the small ribosomal subunit and it is a part of the ribonucleoprotein complex that is responsible for decoding genetic information. This complex ensures the accurate translation of genetic sequences which is essential for proper cell division and growth. The function of RPS12 extends to maintaining the fidelity of translation ensuring that amino acids are added correctly during protein synthesis.
Pathways	The role of Ribosomal Protein S12 is significant in the mRNA translation pathway affecting gene expression and protein production. It is directly linked to the regulation of the translation machinery. RPS12 is associated with various other ribosomal proteins such as RPS6 and RPL5 to form a coordinated network that influences protein synthesis and cellular responses to environmental changes. Its

	interaction with these proteins underpins its participation in the global control of protein synthesis.
Associated diseases and disorders	Altered expression or mutations in Ribosomal Protein S12 have connections with certain ribosomopathies. Disorders like Diamond-Blackfan anemia relate to dysfunctions within ribosomal components including RPS12. Moreover aberrations in ribosomal proteins including RPS12 can predispose individuals to cancer by disrupting normal cell growth control. Understanding how RPS12 interacts with proteins involved in these diseases can provide insights into potential therapeutic targets.

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

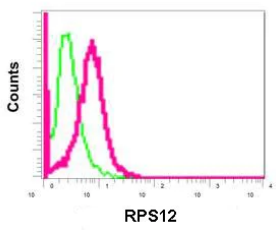
We do not recommend this combination. It is not covered by our product promise.

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.

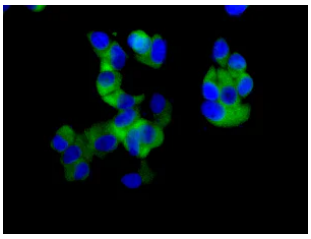
4 product images



Flow Cytometry (Intracellular) - Anti-RPS12 antibody [EPR10963] (ab175219)

RPS12 Flow Cytometry (Intracellular) staining using rabbit Anti-RPS12 antibody

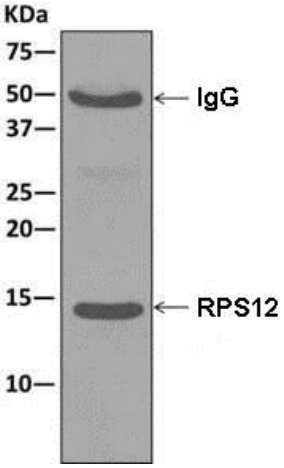
Intracellular flow cytometric analysis of permeabilized HeLa cells labeling RPS12 with ab175219 at 1/10 dilution (red) compared toa rabbit IgG negative control (green).



Immunocytochemistry/ Immunofluorescence - Anti-RPS12 antibody [EPR10963] (ab175219)

RPS12 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-RPS12 antibody

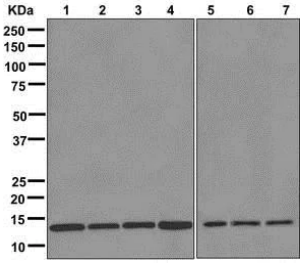
Immunofluorescent staining of MCF7 cells labeling RPS12 with ab175219 at 1/50 dilution (green). DAPI nuclear staining (blue).



Immunoprecipitation - Anti-RPS12 antibody [EPR10963] (ab175219)

Western blot analysis on immunoprecipitation pellet from HeLa cell lysate using ab175219 at 1/10 dilution.
All lanes:
Immunoprecipitation - Anti-RPS12 antibody [EPR10963] (ab175219)

Predicted band size: 15 kDa



Western blot - Anti-RPS12 antibody [EPR10963] (ab175219)

RPS12 Western blot staining using rabbit Anti-RPS12 antibody

All lanes:
Western blot - Anti-RPS12 antibody [EPR10963] (ab175219) at 1/1000 dilution

Lane 1:
Hela cell lysate at 10 µg

Lane 2:
MCF-7 cell lysate at 10 µg

Lane 3:
HepG2 cell lysate at 10 µg

Lane 4:
Raji cell lysate at 10 µg

Lane 5:
C6 cell lysate at 10 µg

Lane 6:
RAW 264.7 cell lysate at 10 µg

Lane 7:
NIH/3T3 cell lysate at 10 µg

Predicted band size: 15 kDa

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