abcam

ab101691

Anti-RPS6 (phospho S235 + S236) antibody [SP50]

Lab Essentials | Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.6 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	SP50
Purification technique	Affinity purification Protein A/G
Concentration	0.054 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from TCS by protein A/G.

Reactivity data

IHC-P

Tested

Species	Mouse
Dilution info	1/100

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

Species	Human
Dilution info	1/100
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/200
Notes	-

Expected

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

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

Dot

Tested

Species	Synthetic peptide
Dilution info	0.0123 µg/mL
Notes	-

Expected

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

ICC/IF

Tested

Species	Human
Dilution info	1/500
Notes	-

Expected

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

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

Target data

See full target information RPS6 pS235 + S236

Function	Component of the 40S small ribosomal subunit (PubMed:23636399, PubMed:8706699). Plays an important role in controlling cell growth and proliferation through the selective translation of particular classes of mRNA

(PubMed:17220279). 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 conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

Species reactivity
Rat: We have preliminary internal testing data to indicate this antibody may not react with this species.
Please contact us for more information.

Supplementary info

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

Activity summary	RPS6 also known as Ribosomal Protein S6 is a component of the 40S ribosomal subunit with a molecular weight of approximately 28 kDa. This protein mainly localizes in the cytoplasm where ribosomes are fixed during protein synthesis. The ribosomal machinery uses RPS6 to translate mRNA into polypeptides operating as an essential part of protein biosynthesis. It expresses in various tissues with higher levels in highly proliferative cells which need extensive protein production for growth.
Biological function summary	RPS6 is integral to the formation of the ribosomal complex. This complex is essential for the translation initiation process. RPS6 controls the translation capacity of ribosomes and functions in growth and development by regulating protein synthesis rates. Alterations in RPS6 activity can impact cellular growth and size due to its role in ribosome biogenesis.
Pathways	RPS6 plays a significant role in the mTOR and PI3K/AKT signaling pathways. These pathways link nutrient availability to protein synthesis influencing cellular growth and metabolism. RPS6 interacts with proteins like S6K1 which is a downstream target in the mTOR pathway to modulate translation and cell growth processes.

Associated diseases and disorders	RPS6 has connections to cancer and metabolic syndromes. Abnormal RPS6 activation can lead to dysregulated cell growth contributing to oncogenesis. In the context of cancer mTOR signaling where RPS6 functions is often upregulated leading to uncontrolled proliferation. Moreover in metabolic disorders the disrupted pathway activity involves other proteins like AKT fostering insulin resistance and metabolic imbalance.

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

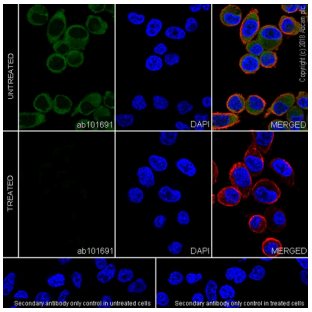
We do not recommend this combination. It is not covered by our product promise.

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

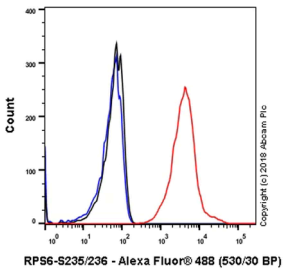


Immunocytochemistry/ Immunofluorescence - Anti-RPS6 (phospho S235 + S236) antibody [SP50] (ab101691)

RPS6 (phospho S235 + S236) Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-RPS6 (phospho S235 + S236) antibody

Immunocytochemistry/ Immunofluorescence analysis of PC-3 (human prostate adenocarcinoma epithelial cell) treated with Lamda phosphatase cells labeling RPS6 with purified ab101691 at 1:500 (0.25 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was

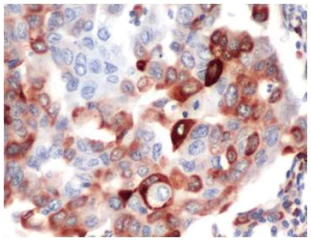
used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-RPS6 (phospho S235 + S236) antibody [SP50] (ab101691)

RPS6 (phospho S235 + S236) Flow Cytometry (Intracellular) staining using rabbit Anti-RPS6 (phospho S235 + S236) antibody

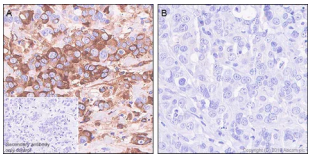
Flow Cytometry analysis of PC-3 (Human prostate adenocarcinoma epithelial cell) cells labeling RPS6 with purified ab101691 at 1:200 dilution (0.615 µg/ml) Red. Cells were fixed with 4% paraformaldehyde . A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1:2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) / Black. Unlabeled control - Unlabelled cells / Blue.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RPS6 (phospho S235 + S236) antibody [SP50] (ab101691)

RPS6 (phospho S235 + S236) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-RPS6 (phospho S235 + S236) antibody

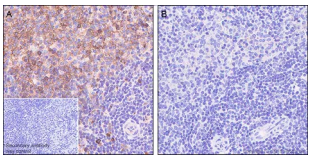
ab101691 at 1/100 dilution staining S6K in Human breast carcinoma by Immunohistochemistry Formalin-fixed, Paraffin-embedded tissue.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RPS6 (phospho S235 + S236) antibody [SP50] (ab101691)

RPS6 (phospho S235 + S236) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-RPS6 (phospho S235 + S236) antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human breast carcinoma tissue sections labeling RPS6 with ab101691 at 1/100 dilution (1.23 µg/ml). Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Dako™ REAL™ EnVision™ Detection System (K5007) was used as the secondary antibody. Hematoxylin was used as a counterstain. Cytoplasmic staining on human breast carcinoma without alkaline phosphatase treatment (image A); and no signal was detected when tissues were treated with alkaline phosphatase (image B), performed on a Leica Biosystems BOND™ RX instrument.
The section was incubated with ab101691 for 10 mins at room temperature.

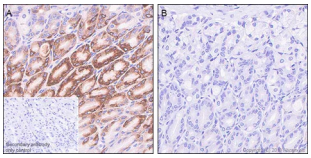


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RPS6 (phospho S235 + S236) antibody [SP50] (ab101691)

RPS6 (phospho S235 + S236) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-RPS6 (phospho S235 + S236) antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat spleen tissue sections labeling RPS6 with ab101691 at 1/100 dilution (1.23 µg/ml). Heat mediated antigen

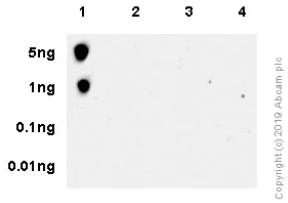
retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Dako™REAL™ EnVision™ Detection System (K5007) was used as the secondary antibody. Hematoxylin was used as a counterstain. Cytoplasmic staining on human rat spleen without alkaline phosphatase treatment (image A); and no signal was detected when tissues were treated with alkaline phosphatase (image B), performed on a Leica Biosystems BOND™ RX instrument.
The section was incubated with ab101691 for 10 mins at room temperature.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RPS6 (phospho S235 + S236) antibody [SP50] (ab101691)

RPS6 (phospho S235 + S236) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-RPS6 (phospho S235 + S236) antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse stomach tissue sections labeling RPS6 with ab101691 at 1/100 dilution (1.23 µg/ml). Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Dako™REAL™ EnVision™ Detection System (K5007) was used as the secondary antibody. Hematoxylin was used as a counterstain. Cytoplasmic staining on mouse stomach without alkaline phosphatase treatment (image A); and no signal was detected when tissues were treated with alkaline phosphatase (image B), performed on a Leica Biosystems BOND™ RX instrument.
The section was incubated with ab101691 for 10 mins at room temperature.



Dot Blot - Anti-RPS6 (phospho S235 + S236) antibody [SP50] (ab101691)

Dot blot analysis of RPS6 (phospho S235 + S236) peptide (Lane 1), RPS6 (phospho S235) peptide (phospho 2) RPS6 (phospho S236) peptide (Lane 3) and RPS6 non-phospho peptide (Lane 4) labeling RPS6 (phospho S235 + S236) peptide with purified ab101691 at 0.123 ug/mL. ab97051 was used as the secondary antibody at 0.01 ug/mL.
Blocking buffer: 5% NFDM/TBST. Dilution buffer: 5% NFDM /TBST .

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