abcam

ab278772

PE Anti-RPS6 (phospho S240 + S244) antibody [S6RPS240244-CD10]

Recombinant

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	Preservative: 0.09% Sodium azide Constituents: PBS, 0.2% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Human RPS6 pS240 + S244. The exact immunogen used to generate this antibody is proprietary information. Database link P62753
Clone number	S6RPS240244-CD10
Purification technique	Affinity purification Protein A/G
Light chain type	kappa

Reactivity data

Flow Cyt

Tested

Species	Human

Dilution info	5 µL for 10^6 Cells
Notes	-

Target data

See full target information RPS6 pS240 + S244

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	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Store in the dark

Notes

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	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

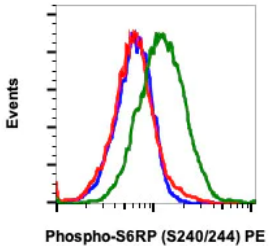
We do not recommend this combination. It is not covered by our product promise.

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.

1 product image



Flow Cytometry - PE Anti-RPS6 (phospho S240 + S244) antibody [S6RPS240244-CD10] (ab278772)

RPS6 (phospho S240 + S244) Flow Cytometry staining using rabbit Anti-RPS6 (phospho S240 + S244) antibody

Flow cytometric analysis of K562 cells untreated and stained as negative control (blue) or untreated (red) or treated with EGF (green) using ab278772.

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