abcam

ab250753

# Anti-P70 S6 Kinase beta/SRK antibody [EPR14956] - BSA and Azide free

Recombinant | RabMAb | KO Validated

## 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** | EPR14956 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 0.988 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## ICC/IF

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |

| | |
|---|---|
| **Notes** | - |

### Predicted

| | |
|---|---|
| **Species** | Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

## WB

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

### Predicted

| | |
|---|---|
| **Species** | Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

## Flow Cyt (Intra)

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

### Predicted

| | |
|---|---|
| **Species** | Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

## IHC-P

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

### Predicted

| | |
|---|---|
| **Species** | Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

## Target data

See full target information RPS6KB2

| | |
|---|---|
| **Function** | Phosphorylates specifically ribosomal protein S6 (PubMed:29750193). Seems to act downstream of mTOR signaling in response to growth factors and nutrients to promote cell proliferation, cell growth and cell cycle progression in an alternative pathway regulated by MEAK7 (PubMed:29750193). |

## 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

ab250753 is the carrier-free version of ab184551.

**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** | P70 S6 Kinase beta also known as SRK is a protein kinase involved in the regulation of cellular growth and metabolism. It has a molecular mass of approximately 70 kDa. This kinase is predominantly expressed in brain liver and muscle tissues. P70 is an important mediator in the process of protein translation acting mechanically by phosphorylating the ribosomal protein S6 which in turn enhances the translation of a subset of mRNAs related to cell growth processes. |
| **Biological function summary** | P70 S6 Kinase beta/SRK is a significant component in the cellular signaling complexes that manage cell size and energy regulation. It participates in the mechanistic target of rapamycin (mTOR) pathway. Through its enzymatic activity it helps cells respond to growth factors and nutrients. By motivating the translation of mRNAs p70 sustains ribosome biogenesis and cell growth. |
| **Pathways** | P70 operates within the mTOR signaling pathway known for its role in controlling cell growth and proliferation. It interacts with proteins like mTORC1 which is a known regulator of cellular metabolism and protein synthesis. These interactions allow p70 to integrate signals from other kinases like Akt influencing downstream responses including glucose metabolism. |
| **Associated diseases and disorders** | P70 S6 Kinase beta/SRK links to conditions such as cancer and type 2 diabetes. Aberrant activation of P70 through the mTOR pathway contributes significantly to tumorigenesis due to its influence on cell growth and survival. Additionally in type 2 diabetes dysregulated signaling of P70 affects insulin sensitivity often in conjunction with related enzymes such as Akt and mTOR. |

## 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.

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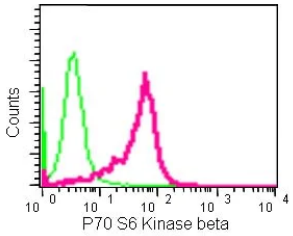
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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## 6 product images

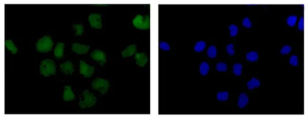



### Flow Cytometry (Intracellular) - Anti-P70 S6 Kinase beta/SRK antibody [EPR14956] - BSA and Azide free (ab250753)

P70 S6 Kinase beta/SRK Flow Cytometry (Intracellular) staining using rabbit Anti-P70 S6 Kinase beta/SRK antibody

This data was developed using ab184551, the same antibody clone in a different buffer formulation.
Intracellular Flow Cytometry analysis of 2% paraformaldehyde fixed HeLa cells labeling P70 S6 Kinase beta/SRK using ab184551 at a 1/100 dilution (red) or a Rabbit monoclonal IgG (green). Goat anti rabbit IgG (FITC) secondary at a 1/150 dilution

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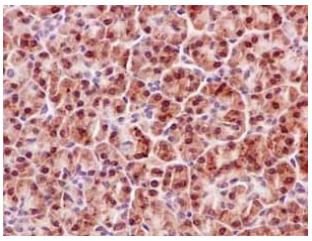


### Immunocytochemistry/ Immunofluorescence - Anti-P70 S6 Kinase beta/SRK antibody [EPR14956] - BSA and Azide free (ab250753)

P70 S6 Kinase beta/SRK Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-P70 S6 Kinase beta/SRK antibody

This data was developed using ab184551, the same antibody clone in a different buffer formulation.

Immunofluorescent staining of 4% paraformaldehyde fixed HeLa cells labeling P70 S6 Kinase beta/SRK using ab184551 at a 1/250 dilution and a Goat anti rabbit IgG (Alexa Fluor® 488) secondary at a 1/200 dilution (green) costained with Dapi (blue).

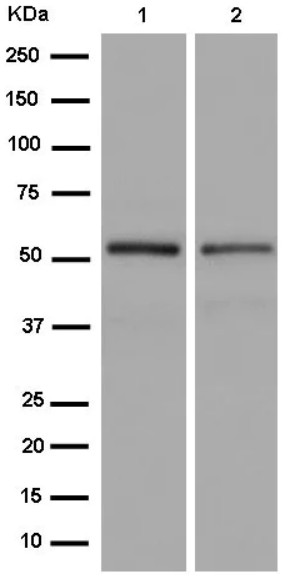


## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-P70 S6 Kinase beta/SRK antibody [EPR14956] - BSA and Azide free (ab250753)

P70 S6 Kinase beta/SRK Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-P70 S6 Kinase beta/SRK antibody

This data was developed using ab184551, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human pancreas labeling P70 S6 Kinase beta/SRK using ab184551 at a 1/50 dilution, counterstained with Hematoxylin.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.




## Western blot - Anti-P70 S6 Kinase beta/SRK antibody [EPR14956] - BSA and Azide free (ab250753)

P70 S6 Kinase beta/SRK Western blot staining using rabbit Anti-P70 S6 Kinase beta/SRK antibody

This data was developed using ab184551, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-P70 S6 Kinase beta/SRK antibody [EPR14956] - N-terminal (ab184551) at 1/50000 dilution

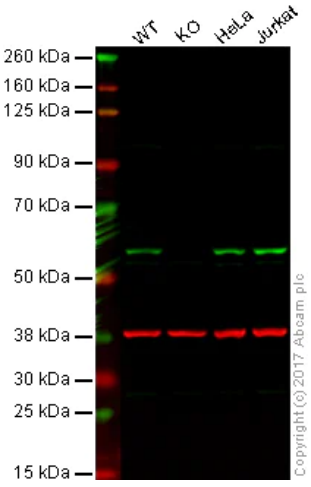
Lane 1:
Jurkat cell lysate at 20 µg

Lane 2:
K562 cell lysate at 20 µg

Secondary

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

Predicted band size: 53 kDa




## Western blot - Anti-P70 S6 Kinase beta/SRK antibody [EPR14956] - BSA and Azide free (ab250753)

P70 S6 Kinase beta/SRK Western blot staining using rabbit Anti-P70 S6 Kinase beta/SRK antibody

This data was developed using ab184551, the same antibody clone in a different buffer formulation.
**Lane 1:** Wild-type HAP1 whole cell lysate (20 Âµg)

**Lane 2:** RPS6KB2 knockout HAP1 whole cell lysate (20 Âµg)

**Lane 3:** HeLa whole cell lysate (20 Âµg)

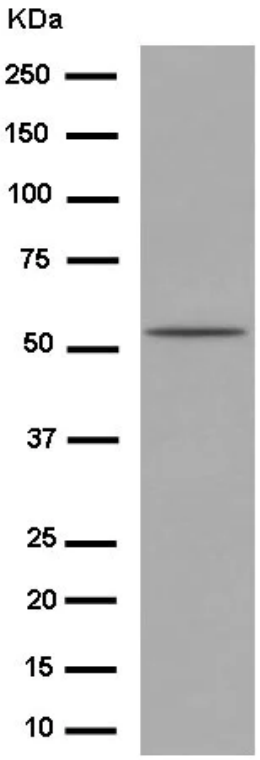
**Lane 4:** Jurkat whole cell lysate (20 Âµg)

**Lanes 1 - 4:** Merged signal (red and green). Green - ab184551 observed at 53 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab184551 was shown to specifically react with P70 S6 Kinase beta/SRK in wild-type HAP1 cells. No band was observed when RPS6KB2 knockout samples were used. Wild-type and RPS6KB2 knockout samples were subjected to SDS-PAGE. ab184551 and ab8245 (Mouse anti GAPDH loading control) were incubated overnight at 4Â°C at 1/1000 dilution and 1/10,000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDyeÂ® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDyeÂ® 680RD) preabsorbed ab216776 secondary antibodies at 1/20,000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-P70 S6 Kinase beta/SRK antibody [EPR14956] - N-terminal (ab184551)

Predicted band size: 53 kDa




## Western blot - Anti-P70 S6 Kinase beta/SRK antibody [EPR14956] - BSA and Azide free (ab250753)

This data was developed using ab184551, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-P70 S6 Kinase beta/SRK antibody [EPR14956] - N-terminal (ab184551) at 1/10000 dilution

All lanes:
Human fetal liver 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: 53 kDa

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