abcam

ab238963

Anti-STIP1/STI1 antibody [EPR6605] - 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	EPR6605
Purification technique	Affinity purification Protein A
Concentration	1.011 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-

Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Target data

See full target information STIP1

Function	Acts as a co-chaperone for HSP90AA1 (PubMed:27353360). Mediates the association of the molecular chaperones HSPA8/HSC70 and HSP90 (By similarity).

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

ab238963 is the carrier-free version of ab126724.

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	STIP1 also known as STI1 is a stress-induced phosphoprotein that assists in the folding and stabilization of other proteins. The protein has a mass of approximately 63 kDa. It acts as a co-chaperone and interacts with key chaperones like HSP70 and HSP90 facilitating the transfer of client proteins between them. STIP1 is expressed in various tissues with significant presence in the nervous system and reproductive organs. It contributes to the protein homeostasis by modulating chaperone activity and protecting cells during stress conditions like high temperatures or oxidative stress.
Biological function summary	The stress-induced phosphoprotein STIP1 functions within cytoplasm and is pivotal for cellular integrity. It forms a complex with HSP70 and HSP90 that regulates the folding and activation of a range of client proteins including steroid hormone receptors and kinases. This modulation influences protein activity stability and degradation. STIP1 impacts signal transduction pathways cellular growth and stress responses by influencing how effectively client proteins perform their biological roles within cells.
Pathways	The protein STIP1 plays a significant part in the steroid hormone signaling pathway and the protein folding network. It helps facilitate the proper folding and function of steroid hormone receptors through its interaction with major chaperone proteins HSP70 and HSP90. Both these pathways are important for cell survival and proper cell regulation. By helping with the maturation and activation of client proteins STIP1 ensures that cellular responses to various internal and external signals proceed efficiently.
Associated diseases and disorders	The involvement of STIP1 emerges most clearly in neurodegenerative conditions like Alzheimer's disease and cancer. In Alzheimer's disease STIP1 interacts with prion proteins which influence amyloid-beta aggregation and may impact disease progression. In cancer the protein assists in stabilizing client proteins essential for tumor progression such as steroid hormone receptors and protein kinases. Disruption in STIP1 function can lead to impaired cellular stress responses and may contribute to disease pathogenesis.

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.

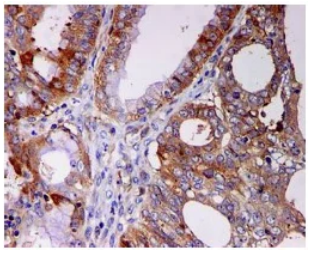
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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5 product images

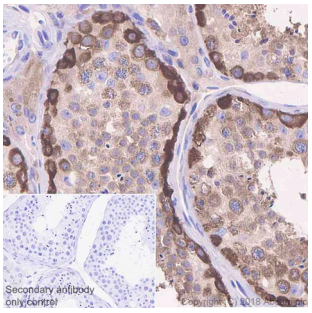


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STIP1/STI1 antibody [EPR6605] - BSA and Azide free (ab238963)

STIP1/STI1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-STIP1/STI1 antibody

Unpurified ab126724, at a dilution of 1/250, staining STIP1/STI1 in paraffin-embedded human ovarian carcinoma tissue by Immunohistochemistry.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, tissue culture supernatant and sodium azide (ab126724).

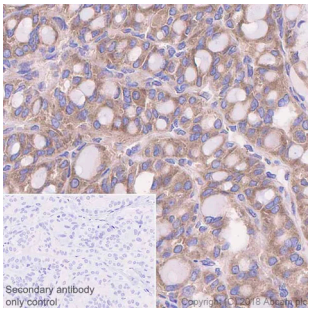
Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STIP1/STI1 antibody [EPR6605] - BSA and Azide free (ab238963)

STIP1/STI1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-STIP1/STI1 antibody

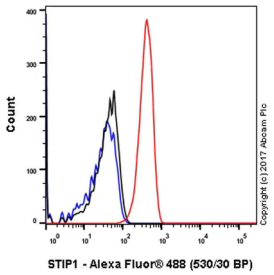
This image was made using ab126724 which is the same antibody as ab238963 with BSA and Azide Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human testis tissue sections labeling STIP1/STI1 with Purified ab126724 at 1:1000 dilution (0.18 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody. Negative control:PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STIP1/STI1 antibody [EPR6605] - BSA and Azide free (ab238963)

STIP1/STI1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-STIP1/STI1 antibody

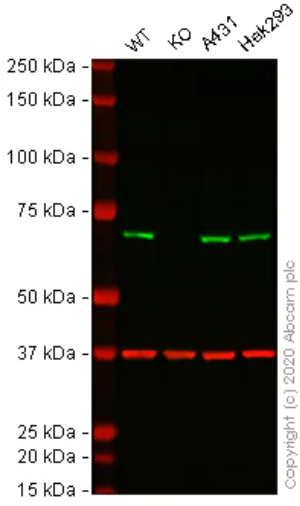
This image was made using ab126724 which is the same antibody as ab238963 with BSA and Azide Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human thyroid cancer tissue sections labeling STIP1/STI1 with Purified ab126724 at 1:1000 dilution (0.18 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody. Negative control:PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Flow Cytometry (Intracellular) - Anti-STIP1/STI1 antibody [EPR6605] - BSA and Azide free (ab238963)

STIP1/STI1 Flow Cytometry (Intracellular) staining using rabbit Anti-STIP1/STI1 antibody

Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling STIP1/STI1 (red) with ab126724 at a 1/200 dilution. Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (ab172730). Blue (unlabeled control) - Cells without incubation with primary and secondary antibodies. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab126724).



Western blot - Anti-STIP1/STI1 antibody [EPR6605] - BSA and Azide free (ab238963)

STIP1/STI1 Western blot staining using rabbit Anti-STIP1/STI1 antibody

This data was developed using the same antibody clone in a different buffer formulation (ab126724).
Lanes 1 - 4: Merged signal (red and green). Green - ab126724 observed at 63 kDa. Red - loading control ab8245 (Mouse anti-GAPDH antibody [6C5]) observed at 37kDa.

ab126724 was shown to react with STIP1/STI1 in wild-type HAP1 cells in western blot with loss of signal observed in STIP1 knockout sample. Wild-type and STIP1 knockout HAP1 cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% milk in TBS-T (0.1% Tween®) before incubation with ab126724 and ab8245 (Mouse anti-GAPDH antibody [6C5]) overnight at 4°C at a 1 in 10000 Dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-STIP1/STI1 antibody [EPR6605] (ab126724) at 1/10000 dilution

Lane 1:
Wild-type HAP1 cell lysate at 20 µg

Lane 2:
STIP1 knockout HAP1 cell lysate at 20 µg

Lane 3:

A431 cell lysate at 20 µg

Lane 4:
HEK-293 cell lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 63 kDa

Observed band size: 63 kDa

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