abcam

ab125011

Anti-TSG101 antibody [EPR7130(B)]

Anti-TSG101 antibody [EPR7130(B)] (ab125011) is a rabbit monoclonal antibody detecting TSG101 in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- Clone EPR7130(B) is the most cited clone to TSG101
- Biophysical QC for unrivalled batch-batch consistency
- Over 1000 publications

Goat version of this clone also available as ab320807. Same clone, same staining pattern, different species antibody backbone.
Learn more about chimeric antibodies

Recombinant | RabMAb | 20ul selling size

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	EPR7130(B)
Purification technique	Affinity purification Protein A
Dissociation constant	4 x 10^{-12} M
Concentration	0.226 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Mouse
Dilution info	1/1000 - 1/10000
Notes	-

Species	Rat
Dilution info	1/1000 - 1/10000
Notes	-

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

IHC-P

Tested

Species	Rat
Dilution info	1/300
Notes	**For unpurified use at 1/30.** Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/300
Notes	**For unpurified use at 1/30.** Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Expected

Species	Mouse

Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1 µg/mL
Notes	**For unpurified use at 1/10.** **This product gave a positive signal in HeLa fixed with 100% methanol (5 min).**

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/20
Notes	For unpurified use at 1/3. 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 Tumor susceptibility gene 101 protein

Function	Component of the ESCRT-I complex, a regulator of vesicular trafficking process. Binds to ubiquitinated cargo proteins and is required for the sorting of endocytic ubiquitinated cargos into multivesicular bodies (MVBs). Mediates the association between the ESCRT-0 and ESCRT-I complex. Required for completion of cytokinesis; the function requires CEP55. May be involved in cell growth and differentiation. Acts as a negative growth regulator. Involved in the budding of many viruses through an interaction with viral proteins that contain a late-budding motif P-[ST]-A-P. This interaction is essential for viral particle budding of numerous retroviruses. Required for the exosomal release of SDCBP, CD63 and syndecan (PubMed:22660413). It may also play a role in the extracellular release of microvesicles that differ from the exosomes (PubMed:22315426).

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

Anti-TSG101 antibody [EPR7130(B)] (ab125011) was developed by Abcam using patented rabbit monoclonal antibody technology and is validated for use in Flow Cyt (Intra), ICC/IF, IHC-P and WB.

Anti-TSG101 antibody [EPR7130(B)] (ab125011) was first used in a scientific publication in 2014 and has been cited over 603 times in peer reviewed journals. It's performance in Western Blot in human, mouse and rat samples is trusted by the scientific community.

Abcam's high quality manufacturing and validation processes ensure Anti-TSG101 antibody [EPR7130(B)] (ab125011) has high sensitivity and specificity alongside high lot-to-lot consistency and reproducibility.

Anti-TSG101 antibody [EPR7130(B)] (ab125011) has 10 independent reviews from customers.

Anti-TSG101 antibody [EPR7130(B)] (ab125011) specifically detects TSG101 (UniProt ID: Q99816; Molecular weight: 44kDa) and is sold in a convenient trial size to enable initial testing (10 µL) and larger sizes for subsequent scaling up experiments (100 µL and 1 mL).

Conjugation-ready, carrier free format available for antibody clone EPR7130(B) - ab207567.

Antibody clone EPR7130(B) is also available pre-conjugated to a variety of labels for your convenience - Alexa Fluor® 488, Alexa Fluor® 647, PE, Alexa Fluor® 555, APC (ab207663, ab207664, ab209927, ab214404, ab316299).

Tumor Susceptibility Gene 101 (TSG101) is involved in the endosomal sorting complex required for transport (ESCRT) pathway, which is crucial for cellular processes like vesicle trafficking and degradation. Alterations in TSG101 expression are linked to various cancers, including breast cancer and glioblastoma, where it can act as both a tumor suppressor and an oncoprotein depending on the context.

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	TSG101 also known as Tumor Susceptibility Gene 101 is a protein involved in intracellular trafficking specifically notable within the process of endosomal sorting. It is a component of the ESCRT-I (Endosomal Sorting Complex Required for Transport-I) complex. TSG101 is approximately 46 kDa and is expressed ubiquitously across various tissues. The mechanistic function of TSG101 involves the recognition and ubiquitination of cargo proteins an important step in the formation of multivesicular bodies.
Biological function summary	TSG101 plays a critical role in the sorting and trafficking of proteins destined for lysosomal degradation or recycling back to the plasma membrane. It is an essential part of the ESCRT machinery which also includes other components like VPS37 and VPS28. TSG101 interacts with specific domains and motifs on target proteins facilitating the recognition and recruitment of these proteins into vesicles. Its involvement in membrane budding and scission makes it important for maintaining cellular homeostasis and protein quality control.
Pathways	TSG101 is integrally involved in the ESCRT pathway and is associated with processes like viral budding and cytokinesis. Within these pathways it collaborates with proteins such as ALIX and the ESCRT-II component VPS25 to mediate vesicle formation and facilitate the trafficking of ubiquitinated cargo. The ESCRT pathway is vital in cellular responses such as membrane repair and is important for the life cycle of certain enveloped viruses which utilize host cell machinery for budding.
Associated diseases and disorders	Defects or alterations in TSG101 expression have correlations with tumor progression and neurodegenerative diseases. Disruptions in the function of TSG101 can affect cellular processes potentially contributing to conditions like

cancer and Alzheimer's disease. For example the aberrant activity of TSG101 may interact with proteins like Hrs and ubiquitin ligases Mdm2 in the context of oncogenic signaling pathways which can drive tumor growth and metastasis. Understanding these interactions is key to uncovering potential therapeutic targets within these diseases.

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

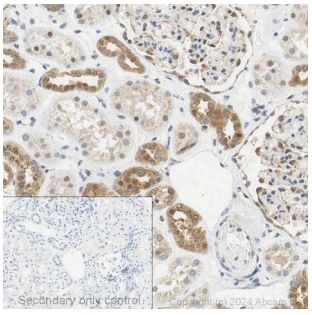
We do not recommend this combination. It is not covered by our product promise.

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.

10 product images



Immunohistochemistry - Anti-TSG101 antibody [EPR7130(B)] (ab125011)

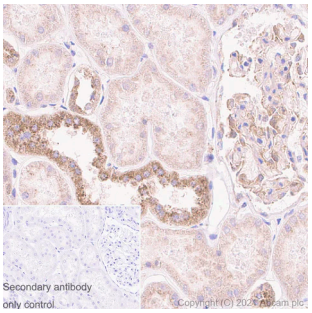
TSG101 Immunohistochemistry staining of human kidney using rabbit Anti-TSG101 antibody

Immunohistochemical analysis of formalin fixed paraffin embedded human kidney labelling TSG101 with ab125011 at a concentration of 0.1µg/ml.

The immunostaining was performed on a Ventana DISCOVERY ULTRA (Roche Tissue Diagnostics) instrument with an OptiView DAB IHC Detection Kit. Heat mediated antigen retrieval was conducted for 32min with DISCOVERY cell conditioning solution (CC1) 100°C, pH8.5. ab125011 anti-TSG101 was incubated at 37°C for 16min.

Sections were counterstained is with Hematoxylin II. Image inset shows absence of staining in secondary antibody only control.

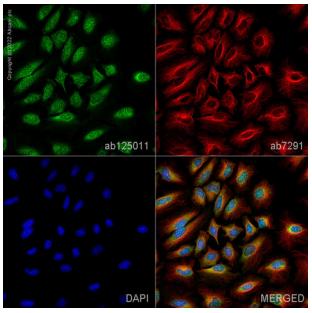
Customers are encouraged to optimise antigen retrieval conditions, antibody concentration, incubation times and temperature for best results in their own IHC assay workflow (automated and manual)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TSG101 antibody [EPR7130(B)] (ab125011)

TSG101 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TSG101 antibody

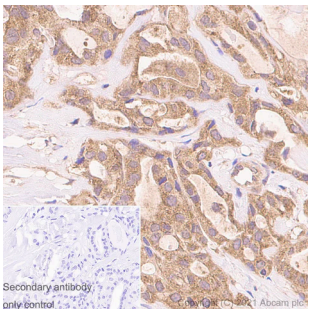
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue sections labeling TSG101 with Purified ab125011 at 1:300 dilution (0.73 µg/ml). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) . Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) secondary antibody was used. PBS instead of the primary antibody was used as the negative control.



Immunocytochemistry/ Immunofluorescence - Anti-TSG101 antibody [EPR7130(B)] (ab125011)

TSG101 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-TSG101 antibody

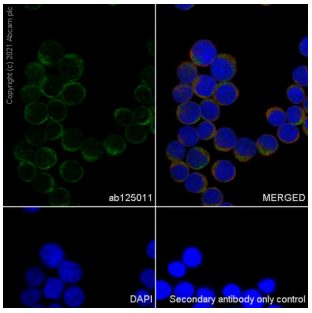
ab125011 staining TSG101 in HeLa cells. The cells were fixed with 100% methanol (5 min), permeabilised with 0.1% Triton x-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab125011 at 1 µg/ml and ab7291, Mouse monoclonal [DM1A] to alpha Tubulin at 0.5 µg/ml. Cells were then incubated with ab150081, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and ab150119, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 647), pre-adsorbed at 1/1000 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TSG101 antibody [EPR7130(B)] (ab125011)

TSG101 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TSG101 antibody

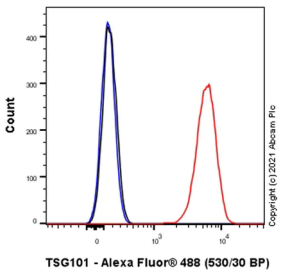
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human thyroid cancer tissue sections labeling TSG101 with Purified ab125011 at 1:300 dilution (0.73 µg/ml). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) . Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) secondary antibody was used. PBS instead of the primary antibody was used as the negative control.



Immunocytochemistry/ Immunofluorescence - Anti-TSG101 antibody [EPR7130(B)] (ab125011)

TSG101 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-TSG101 antibody

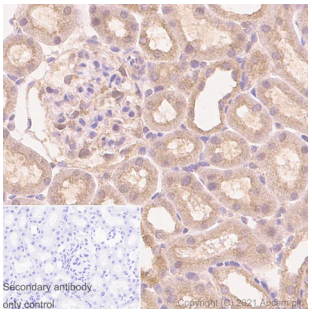
Immunocytochemistry analysis of Jurkat (Human T cell leukemia T lymphocyte) cells labeling TSG101 with Purified ab125011 at 1:50 dilution (4.5 µg/ml). Cells were fixed in 100% Methanol and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - 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 (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-TSG101 antibody [EPR7130(B)] (ab125011)

TSG101 Flow Cytometry (Intracellular) staining using rabbit Anti-TSG101 antibody

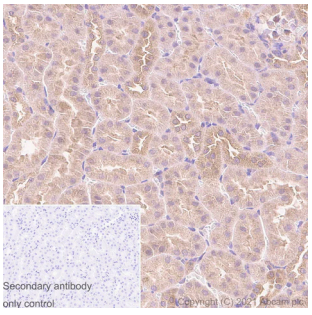
Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling TSG101 with Purified ab125011 at 1:20 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1:2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabelled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TSG101 antibody [EPR7130(B)] (ab125011)

TSG101 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TSG101 antibody

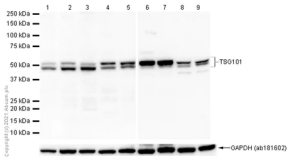
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat kidney tissue sections labeling TSG101 with Purified ab125011 at 1:300 dilution (0.73 µg/ml). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) . Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) secondary antibody was used. PBS instead of the primary antibody was used as the negative control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TSG101 antibody [EPR7130(B)] (ab125011)

TSG101 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TSG101 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse kidney tissue sections labeling TSG101 with Purified ab125011 at 1:300 dilution (0.73 µg/ml). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) . Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) secondary antibody was used. PBS instead of the primary antibody was used as the negative control.



Western blot - Anti-TSG101 antibody [EPR7130(B)] (ab125011)

TSG101 Western blot staining using rabbit Anti-TSG101 antibody

The doublet are consistent with what have been described in the literature (PMID: 27882925, 31684046, 32932791, 11427703).
All lanes:
Western blot - Anti-TSG101 antibody [EPR7130(B)] (ab125011) at 1/1000 dilution

Lane 1:
K-562 (Human chronic myelogenous leukemia lymphoblast) whole cell lysate at 20 µg

Lane 2:
Jurkat (Human T cell leukemia T lymphocyte) whole cell lysate at 20 µg

Lane 3:
SH-SY5Y (Human neuroblastoma epithelial cell) whole cell lysate at 20 µg

Lane 4:
NIH/3T3 (Mouse embryonic fibroblast) whole cell lysate at 20 µg

Lane 5:
PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysate at 20 µg

Lane 6:
Mouse heart lysate at 20 µg

Lane 7:
Rat heart lysate at 20 µg

Lane 8:
Mouse brain lysate at 20 µg

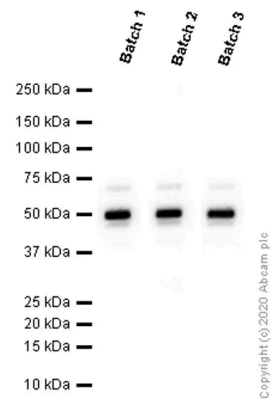
Lane 9:
Rat brain lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 44 kDa

Observed band size: 47 kDa, 52 kDa



Western blot - Anti-TSG101 antibody [EPR7130(B)] (ab125011)

TSG101 Western blot staining using rabbit Anti-TSG101 antibody

Different batches of ab125011 were tested on Mouse heart lysate at 1.0 µg/ml. 15 µg of lysate was loaded in each lane. Bands observed at 45 kDa.
This data was generarted using the unpurified format.

All lanes:
Western blot - Anti-TSG101 antibody [EPR7130(B)] (ab125011)

Predicted band size: 44 kDa

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