abcam

ab274383

Anti-TSG6 antibody [EPR17582-45] - BSA and Azide free

Recombinant | RabMAb

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	EPR17582-45
Purification technique	Affinity purification Protein A
Concentration	1.001 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Rat, Human, Mouse
Dilution info	-

Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Mouse
Dilution info	-
Notes	-

WB

Tested

Species	Human, Rat
Dilution info	-
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Rat, Human, Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information TNFAIP6

Function Major regulator of extracellular matrix organization during tissue remodeling (PubMed:15917224, PubMed:18042364, PubMed:26823460). Catalyzes the transfer of a heavy chain (HC) from inter-alpha-inhibitor (I-alpha-I) complex to hyaluronan. Cleaves the ester bond between the C-terminus of the HC and GalNAc residue of the chondroitin sulfate chain in I-alpha-I complex followed by transesterification of the HC to hyaluronan. In the process, potentiates the antiprotease function of I-alpha-I complex through release of free bikunin (PubMed:15917224, PubMed:16873769, PubMed:20463016). Acts as a catalyst in the formation of hyaluronan-HC oligomers and hyaluronan-rich matrix surrounding the cumulus

cell-oocyte complex, a necessary step for oocyte fertilization (PubMed:26468290). Assembles hyaluronan in pericellular matrices that serve as platforms for receptor clustering and signaling. Enables binding of hyaluronan deposited on the surface of macrophages to LYVE1 on lymphatic endothelium and facilitates macrophage extravasation. Alters hyaluronan binding to functionally latent CD44 on vascular endothelium, switching CD44 into an active state that supports leukocyte rolling (PubMed:15060082, PubMed:26823460). Modulates the interaction of chemokines with extracellular matrix components and proteoglycans on endothelial cell surface, likely preventing chemokine gradient formation (PubMed:27044744). In a negative feedback mechanism, may limit excessive neutrophil recruitment at inflammatory sites by antagonizing the association of CXCL8 with glycosaminoglycans on vascular endothelium (PubMed:24501198). Has a role in osteogenesis and bone remodeling. Inhibits BMP2-dependent differentiation of mesenchymal stem cell to osteoblasts (PubMed:16771708, PubMed:18586671). Protects against bone erosion during inflammation by inhibiting TNFSF11/RANKL-dependent osteoclast activation (PubMed:18586671).

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

ab274383 is the carrier-free version of ab267469.

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	TSG6 also known as tumor necrosis factor-inducible gene 6 protein plays an important role in inflammation and tissue repair. This protein has a molecular mass of approximately 35 kDa. TSG6 expresses in various tissues especially in response to inflammation or tissue injury. Such expression is significant in cells like macrophages and fibroblasts as well as in tissues like the synovial lining and skin.
Biological function summary	TSG6 contributes to the modulation of the inflammatory response and tissue remodeling. It does this by interacting with molecules such as hyaluronan which is an important component of the extracellular matrix. During inflammatory responses TSG6 forms a complex with inter-α-inhibitor a serine protease inhibitor enhancing its stability and function. Through these interactions TSG6 helps to regulate the extracellular environment during tissue repair processes.
Pathways	The protein TSG6 participates actively in the inflammatory pathway and the hyaluronan metabolism pathway. It influences inflammatory events by modulating the activity of inflammatory cytokines affecting processes like leukocyte recruitment. TSG6 works closely with proteins such as TNF-α and IL-1 both integral to the inflammatory response. In the hyaluronan pathway TSG6 influences the structural organization of the matrix affecting cell migration and adhesion.
Associated diseases and disorders	TSG6 relates to conditions like osteoarthritis and rheumatoid arthritis. In these disorders inflammation and tissue degradation play central roles. TSG6 interacts with proteins like matrix metalloproteinases which are involved in tissue breakdown and remodeling. By modulating these interactions TSG6 can potentially influence disease progression or resolution making it an interesting target for therapeutic intervention in inflammatory 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.

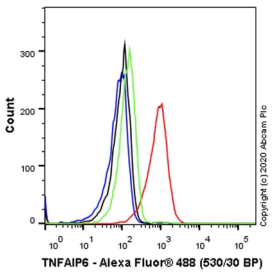
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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4 product images

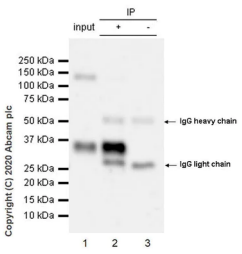


Flow Cytometry (Intracellular) - Anti-TSG6 antibody [EPR17582-45] - BSA and Azide free (ab274383)

TSG6 Flow Cytometry (Intracellular) staining using rabbit Anti-TSG6 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol permeabilized THP-1 (Human monocytic leukemia monocyte) (treated with 100ng/ml lipopolysaccharide (LPS) for 1h, then add BFA for 4h) (Red) / Untreated control (Green) cells labelling TSG6 with ab267469 at 1/500 dilution (0.1ug) (Red, Green) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).
A Goat anti rabbit IgG (Alexa Fluor®488, ab150077) at 1/2000 dilution was used as the secondary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab267469).



Immunoprecipitation - Anti-TSG6 antibody [EPR17582-45] - BSA and Azide free (ab274383)

TSG6 was immunoprecipitated from 0.35 mg THP-1 (human monocytic leukemia monocyte) (treated with 100ng/mg LPS for 3 hours, then treated with BFA for 2 hours) whole cell lysate with ab267469 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab267469 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/5000 dilution.
Lane 1: THP-1 (treated with 100ng/mg LPS for 3 hours, then treated with BFA for 2 hours) whole cell lysate 10 ug.

Lane 2: ab267469 IP in THP-1 (treated as above).

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab267469 in THP-1 (treated as above) whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

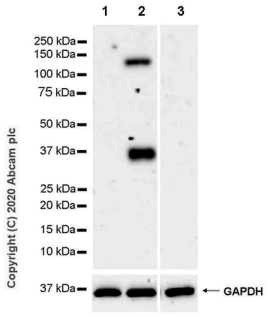
Exposure time: 41 seconds

This blot was developed using a higher sensitivity ECL substrate.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab267469).
All lanes:
Immunoprecipitation - Anti-TSG6 antibody [EPR17582-45] (ab267469)

Predicted band size: 31 kDa

Observed band size: 36 kDa



Western blot - Anti-TSG6 antibody [EPR17582-45] - BSA and Azide free (ab274383)

TSG6 Western blot staining using rabbit Anti-TSG6 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
Band of 36KDa represents the monomeric TSG6. Band of 120KDa likely represents a stable covalent complex formed between TSG6 and one of the heavy chains of inter-α-inhibitor or pre-α-inhibitor (PMID: 22351758, 11420253).

The expression profile observed is consistent with what has been described in the literature (PMID: 22351758, 11420253, 19389798).

Negative control: A549 (PMID: 19389798).

Exposure time: 3 minutes

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab267469).

All lanes:
Western blot - Anti-TSG6 antibody [EPR17582-45] (ab267469) at 1/1000 dilution

Lane 1:
THP-1 (human monocytic leukemia monocyte), whole cell lysate at 20 µg

Lane 2:
THP-1 (treated with 100ng/mg LPS for 3 hours, then treated with BFA for 2 hours), whole cell lysate at 20 µg

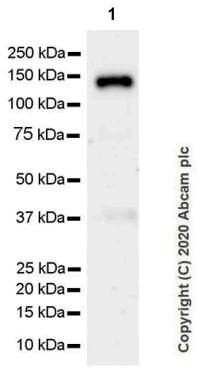
Lane 3:
A549 (human lung carcinoma epithelial cell), whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 31 kDa

Observed band size: 120 kDa, 36 kDa



Western blot - Anti-TSG6 antibody [EPR17582-45] - BSA and Azide free (ab274383)

TSG6 Western blot staining of Rat amniotic membrane tissue lysate using rabbit Anti-TSG6 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
Band of 36KDa represents the monomeric TSG6. Band of 120KDa likely represents a stable covalent complex formed between TSG6 and one of the heavy chains of inter-α-inhibitor or pre-α-inhibitor (PMID: 22351758, 11420253).

The expression profile observed is consistent with what has been described in the literature (PMID: 22351758, 11420253, 19389798).

Exposure time: 3 minutes

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab267469)

All lanes:
Western blot - Anti-TSG6 antibody [EPR17582-45] (ab267469) at 1/1000 dilution

All lanes:
Rat amniotic membrane tissue lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 31 kDa

Observed band size: 120 kDa, 36 kDa

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