abcam

ab307560

Anti-TMS1/ASC antibody [EPR28201-61]

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	EPR28201-61
Purification technique	Affinity purification Protein A
Concentration	0.489 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Mouse
Dilution info	1/30
Notes	-

Expected

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

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Not recommended

Species	Rat, Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Not recommended

Species	Rat, Human

Dilution info	-
Notes	-

IHC-P

Tested

Species	Rat
Dilution info	1/1000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Mouse
Dilution info	1/1000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Human
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

WB

Tested

Species	Rat
Dilution info	1/1000
Notes	-

Species	Mouse
Dilution info	1/1000
Notes	-

Not recommended

Species	Human
Dilution info	-
Notes	-

Target data

See full target information Pycard

Function

Functions as a key mediator in apoptosis and inflammation (PubMed:32424362, PubMed:34678144). Promotes caspase-mediated apoptosis involving predominantly caspase-8 and also caspase-9 in a probable cell type-specific manner (By similarity). Involved in activation of the mitochondrial apoptotic pathway, promotes caspase-8-dependent proteolytic maturation of BID independently of FADD in certain cell types and also mediates mitochondrial translocation of BAX and activates BAX-dependent apoptosis coupled to activation of caspase-9, -2 and -3 (By similarity). Involved in innate immune response by acting as an integral adapter in the assembly of various inflammasomes (NLRP2, NLRP3, NLRP6 and AIM2) which recruit and activate caspase-1 leading to processing and secretion of pro-inflammatory cytokines (PubMed:15190255, PubMed:15507117, PubMed:21892172, PubMed:22555457, PubMed:32424362, PubMed:34678144). Caspase-1-dependent inflammation leads to macrophage pyroptosis, a form of cell death (By similarity). The function as activating adapter in different types of inflammasomes is mediated by the pyrin and CARD domains and their homotypic interactions (By similarity). Clustered PYCARD nucleates the formation of caspase-1 filaments through the interaction of their respective CARD domains, acting as a platform for of caspase-1 polymerization (By similarity). In the NLRC4 inflammasomes seems not be required but facilitates the processing of procaspase-1 (By similarity). In cooperation with NOD2 involved in an inflammasome activated by bacterial muramyl dipeptide leading to caspase-1 activation (By similarity). May be involved in RIGI-triggered pro-inflammatory responses and inflammasome activation (By similarity). In collaboration with AIM2 which detects cytosolic double-stranded DNA may also be involved in a caspase-1-independent cell death that involves caspase-8 (PubMed:22555457). In adaptive immunity may be involved in maturation of dendritic cells to stimulate T-cell immunity and in cytoskeletal rearrangements coupled to chemotaxis and antigen uptake may be involved in post-transcriptional regulation of the guanine nucleotide exchange factor DOCK2; the latter function is proposed to involve the nuclear form (By similarity). Also involved in transcriptional activation of cytokines and chemokines independent of the inflammasome; this function may involve AP-1, NF-kappa-B, MAPK and caspase-8 signaling pathways (By similarity). For regulation of NF-kappa-B activating and inhibiting functions have been reported (By similarity). Modulates NF-kappa-B induction at the level of the IKK complex by inhibiting kinase activity of CHUK and IKBK (By similarity). Proposed to compete with RIPK2 for association with CASP1 thereby down-regulating CASP1-mediated RIPK2-dependent NF-kappa-B activation and activating interleukin-1 beta processing (By similarity). Modulates host resistance to DNA virus infection, probably by inducing the cleavage of and inactivating CGAS in presence of cytoplasmic double-stranded DNA (PubMed:28314590).

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

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.

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

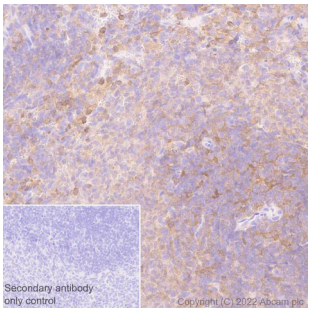
We do not recommend this combination. It is not covered by our product promise.

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.

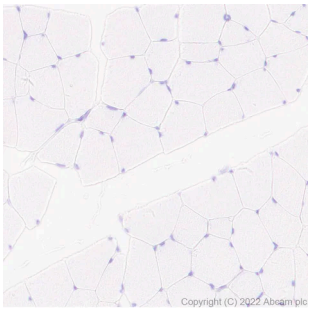
12 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMS1/ASC antibody [EPR28201-61] (ab307560)

TMS1/ASC Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Rat spleen using rabbit Anti-TMS1/ASC antibody

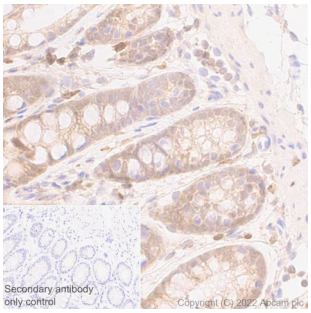
Immunohistochemical analysis of paraffin-embedded Rat spleen tissue lABeling TMS1/ASC with ab307560 at 1/1000 (0.484 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Positive staining on rat spleen.The section was incubated with ab307560 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMS1/ASC antibody [EPR28201-61] (ab307560)

TMS1/ASC Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Rat skeletal muscle using rabbit Anti-TMS1/ASC antibody

Immunohistochemical analysis of paraffin-embedded Rat skeletal muscle tissue lABeling TMS1/ASC with ab307560 at 1/1000 (0.484 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Low expression tissue: no staining on rat skeletal muscle.The section was incubated with ab307560 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

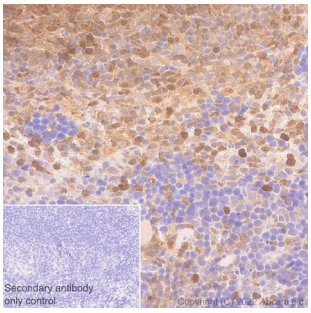


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMS1/ASC antibody [EPR28201-61] (ab307560)

TMS1/ASC Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Rat colon using rabbit Anti-TMS1/ASC antibody

Immunohistochemical analysis of paraffin-embedded Rat colon tissue lABeling TMS1/ASC with ab307560 at 1/1000 (0.484 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine

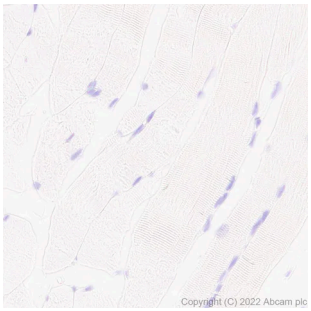
Detection) was used. Positive staining on rat colon.The section was incubated with ab307560 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMS1/ASC antibody [EPR28201-61] (ab307560)

TMS1/ASC Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse spleen using rabbit Anti-TMS1/ASC antibody

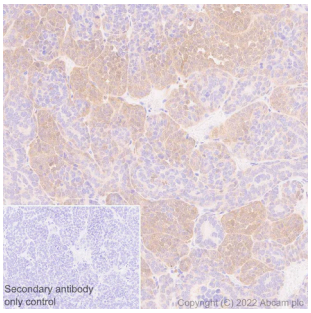
Immunohistochemical analysis of paraffin-embedded Mouse spleen tissue lABeling TMS1/ASC with ab307560 at 1/1000 (0.484 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Positive staining on mouse spleen.The section was incubated with ab307560 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™Polymer Refine Detection) was used. Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMS1/ASC antibody [EPR28201-61] (ab307560)

TMS1/ASC Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse skeletal muscle using rabbit Anti-TMS1/ASC antibody

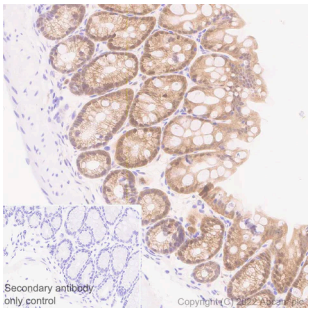
Immunohistochemical analysis of paraffin-embedded Mouse skeletal muscl tissue lABeling TMS1/ASC with ab307560 at 1/1000 (0.484 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Low expression tissue: no staining on mouse skeletal muscle.The section was incubated with ab307560 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMS1/ASC antibody [EPR28201-61] (ab307560)

TMS1/ASC Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse head and neck using rabbit Anti-TMS1/ASC antibody

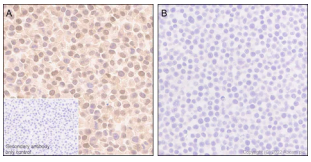
Immunohistochemical analysis of paraffin-embedded Mouse head and neck tissue lABeling TMS1/ASC with ab307560 at 1/1000 (0.484 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Positive staining on mouse head and neck squamous cell carcinoma.The section was incubated with ab307560 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMS1/ASC antibody [EPR28201-61] (ab307560)

TMS1/ASC Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse colon using rabbit Anti-TMS1/ASC antibody

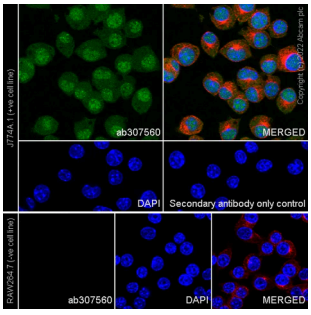
Immunohistochemical analysis of paraffin-embedded Mouse colon tissue lABeling TMS1/ASC with ab307560 at 1/1000 (0.484 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Positive staining on mouse colon.The section was incubated with ab307560 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TMS1/ASC antibody [EPR28201-61] (ab307560)

TMS1/ASC Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of RAW 264.7 using rabbit Anti-TMS1/ASC antibody

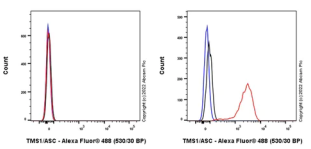
Immunohistochemical analysis of paraffin-embedded (A) J774A.1 (mouse r tissue lABeling TMS1/ASC with ab307560 at 1/1000 (0.484 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Positive staining on (A) J774A.1 (mouse reticulum cell sarcoma monocyte/macrophage) cell pellet, no staining on (B) RAW 264.7 (Mouse ABelson murine leukemia virus-induced tumor macrophage) cell pellet.The section was incubated with ab307560 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunocytochemistry/ Immunofluorescence - Anti-TMS1/ASC antibody [EPR28201-61] (ab307560)

TMS1/ASC Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-TMS1/ASC antibody

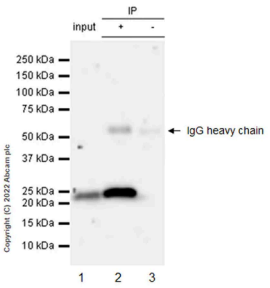
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized J774A.1 (mouse reticulum cell sarcoma monocyte/macrophage) cells labelling TMS1/ASC with ab307560 at 1/500 (0.968 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green). Confocal image showing nuclear and cytoplasmic staining in J774A.1 cell line. Negative control: RAW 264.7 (PMID: 28766178J©
Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8). ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.



Flow Cytometry (Intracellular) - Anti-TMS1/ASC antibody [EPR28201-61] (ab307560)

TMS1/ASC Flow Cytometry (Intracellular) staining using rabbit Anti-TMS1/ASC antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized RAW264.7 (mouse abelson murine leukemia virus-induced tumor macrophage, Left) / J774A.1 (mouse reticulum cell sarcoma monocyte macrophage, Right) cells labelling TMS1/ASC with ab307560 at 1/500 dilution (0.1ug) (Red) 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, ab150081) at 1/2000 dilution was used as the secondary antibody. Negative control: RAW 264.7 (PMID: 28766178).



Immunoprecipitation - Anti-TMS1/ASC antibody [EPR28201-61] (ab307560)

TMS1/ASC was immunoprecipitated from 0.35 mg J774A.1 (mouse reticulum cell sarcoma monocyte/macrophage) whole cell lysate 10 ug with ab307560 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab307560 at 1/1000 dilution. VeriBlot for IP secondary antibody (HRP) (ab131366) was used at 1/5000 dilution.
Lane 1: J774A.1 (mouse reticulum cell sarcoma monocyte/macrophage) whole cell lysate 10 ug
Lane 2: ab307560 IP in J774A.1 whole cell lysate
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab307560 in J774A.1 whole cell lysate

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

Exposure time: 50 seconds

All lanes:
Immunoprecipitation - Anti-TMS1/ASC antibody [EPR28201-61] (ab307560) at 1/1000 dilution

Lane 1:
J774A.1 (mouse reticulum cell sarcoma monocyte/macrophage) whole cell lysate 10 µg

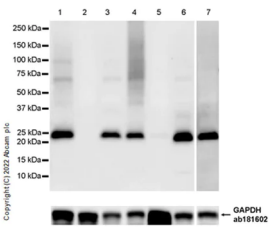
Lane 2:
J774A.1 whole cell lysate

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Observed band size: 21 kDa

Exposure time: 50s



Western blot - Anti-TMS1/ASC antibody [EPR28201-61] (ab307560)

Blocking and diluting buffer and concentration: 5% NFDM/TBSTNegative control: RAW 264.7 (PMID:28766178); Low expression tissue: skeletal muscle (PMID:32659370). Exposure time: Lanes 1-6: 15 seconds; Lane 7: 125 seconds.
All lanes:
Western blot - Anti-TMS1/ASC antibody [EPR28201-61] (ab307560) at 1/1000 dilution

Lane 1:
J774A.1 (mouse reticum cell sarcoma monocyte/macrophage) whole cell lysate 20 µg

Lane 2:
RAW 264.7 (mouse elson murine leukemia virus-induced tumor macrophage) whole cell lysate 20 µg

Lane 3:
Mouse spleen tissue lysate 20 µg

Lane 4:
Mouse colon tissue lysate 20 µg

Lane 5:
Mouse skeletal muscle tissue lysate 20 µg

Lane 6:
Rat spleen tissue lysate 20 µg

Lane 7:
Rat colon tissue lysate 20 µg

Secondary

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

Observed band size: 21 kDa

Exposure time: 15s

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