abcam

ab233547

Anti-SAA3 antibody [EPR23102-242]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	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	EPR23102-242
Purification technique	Affinity purification Protein A
Concentration	0.466 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Mouse
Dilution info	1/50
Notes	-

Expected

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

Not recommended

Species	Recombinant fragment - Mouse, Human
Dilution info	-
Notes	-

IP

Tested

Species	Mouse
Dilution info	1/30
Notes	-

Expected

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

Not recommended

Species	Recombinant fragment - Mouse, Human
Dilution info	-
Notes	-

WB

Tested

Species	Recombinant fragment - Mouse

Dilution info	1/1000
Notes	-

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Not recommended

Species	Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human, Recombinant fragment - Mouse
Dilution info	-
Notes	-

IHC-Fr

Not recommended

Species	Mouse, Rat, Recombinant fragment - Mouse, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Expected

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

Not recommended

Species	Recombinant fragment - Mouse, Human
Dilution info	-
Notes	-

Target data

See full target information Saa3

Function	Major acute phase reactant. Apolipoprotein of the HDL complex. In vitro exhibits antimicrobial activity against Escherichia coli, Streptococcus uberis and Pseudomonas aeruginosa (By similarity).

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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Serum Amyloid A3 (SAA3) is a member of the serum amyloid A family of proteins and is known for its acute-phase response activity. This protein has an approximate mass of 14 kDa. SAA3 expression is mainly found in extrahepatic tissues in response to pro-inflammatory stimuli. It increases quickly during inflammation and tissue injury serving as a sensitive marker for inflammatory diseases. SAA3's function in the immune response makes it an important protein for researchers studying inflammation and related conditions.
Biological function summary	SAA3 modulates inflammatory responses and may play a role in the pathogenesis of chronic inflammatory diseases. SAA3 proteins can associate with high-density lipoprotein (HDL) in the bloodstream. Such association changes the lipid metabolism and cholesterol transport affecting the body's inflammatory state. The protein also participates in attracting immune cells like leukocytes to the site of inflammation contributing to immune surveillance and tissue repair.
Pathways	Several studies show that SAA3 participates in the toll-like receptor (TLR) signaling and nuclear factor kappa-light-chain-enhancer of activated B cells (NF-kB) pathways. These pathways are key regulators of the immune response. SAA3 activation can lead to increased cytokine production such as interleukin-1 (IL-1) and tumor necrosis factor-alpha (TNF-alpha). Its interactions with other SAAs suggest an overlap in their immune-modulating roles making them important players in systemic inflammation.
Associated diseases and disorders	SAA3 is linked to conditions like chronic inflammatory diseases and cancer. In rheumatoid arthritis for instance elevated levels of SAA3 correlate with disease severity implicating it as a potential biomarker. The protein is also associated with atherosclerosis where it may influence the development of arterial plaques. Its connection to SAA1 and SAA2 which are also related to inflammation and amyloid deposition highlights a broader role for SAAs in inflammatory and amyloid-related pathologies.

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

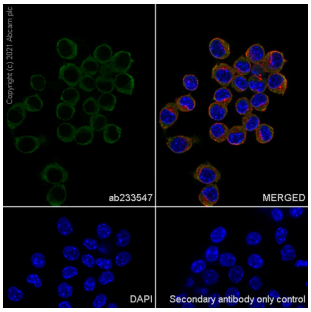
We do not recommend this combination. It is not covered by our product promise.

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.

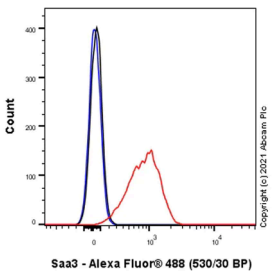
6 product images



Immunocytochemistry/ Immunofluorescence - Anti-SAA3 antibody [EPR23102-242] (ab233547)

SAA3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SAA3 antibody

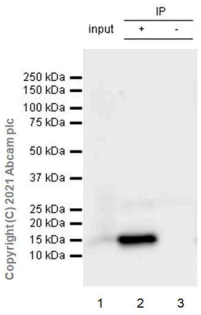
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) cells labelling SAA3 with ab233547 at 1/50 dilution (9.18 ug/ml), followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in RAW 264.7 cells is observed. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).
Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-SAA3 antibody [EPR23102-242] (ab233547)

SAA3 Flow Cytometry (Intracellular) staining using rabbit Anti-SAA3 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) cells labelling SAA3 with ab233547 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, ab150077) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-SAA3 antibody [EPR23102-242] (ab233547)

SAA3 was immunoprecipitated from 0.35 mg of Mouse colon tissue lysate with ab233547 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab233547 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(ab131366) was used at 1/5000 dilution.
Lane 1: Mouse colon tissue lysate 10 ug

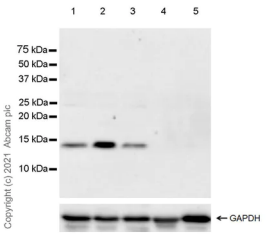
Lane 2: ab233547 IP in Mouse colon tissue lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab233547 in Mouse colon tissue lysate

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

Exposure time: 15 seconds

All lanes:
Immunoprecipitation - Anti-SAA3 antibody [EPR23102-242] (ab233547)



Western blot - Anti-SAA3 antibody [EPR23102-242] (ab233547)

SAA3 Western blot staining using rabbit Anti-SAA3 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST
Low expression: kidney and heart (PMID:29056547)

Exposure time: 92 seconds

All lanes:
Western blot - Anti-SAA3 antibody [EPR23102-242] (ab233547) at 1/1000 dilution

Lane 1:
Rat colon tissue lysate at 20 µg

Lane 2:
Rat liver tissue lysate at 20 µg

Lane 3:
Rat spleen tissue lysate at 20 µg

Lane 4:
Rat kidney tissue lysate at 20 µg

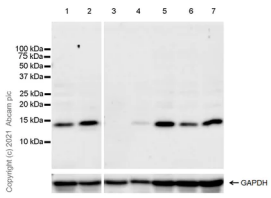
Lane 5:

Rat heart tissue lysate at 20 µg

Secondary

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

Observed band size: 14 kDa



Western blot - Anti-SAA3 antibody [EPR23102-242] (ab233547)

Blocking and diluting buffer and concentration: 5% NFDM/TBST
Low expression: kidney and heart (PMID:29056547)

Exposure time: 92 seconds

All lanes:
Western blot - Anti-SAA3 antibody [EPR23102-242] (ab233547) at 1/1000 dilution

Lane 1:
Mouse colon tissue lysate at 20 µg

Lane 2:
Mouse liver tissue lysate at 20 µg

Lane 3:
Mouse kidney tissue lysate at 20 µg

Lane 4:
Mouse heart tissue lysate at 20 µg

Lane 5:
RAW 264.7 (mouse abelson murine leukemia virus-induced tumor macrophage) whole cell lysate at 20 µg

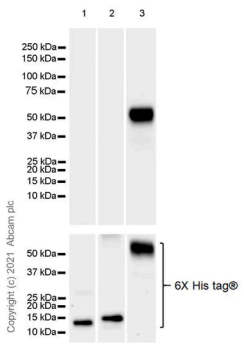
Lane 6:
J774A.1 (mouse reticulum cell sarcoma monocyte macrophage) whole cell lysate at 20 µg

Lane 7:
NR8383 (rat norvegicus lung macrophage (alveolar)) whole cell lysate at 20 µg

Secondary

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

Observed band size: 14 kDa



Western blot - Anti-SAA3 antibody [EPR23102-242] (ab233547)

Blocking and diluting buffer and concentration: 5% NFDM/TBST
Exposure time: 26 seconds

All lanes:
Western blot - Anti-SAA3 antibody [EPR23102-242] (ab233547) at 1/1000 dilution

Lane 1:
His-tagged mouse Saa1 recombinant protein (aa 20-122) at 0.02 µg

Lane 2:
E.coli extracts containing his-tagged mouse Saa2 recombinant protein (aa 20-122) at 20 µL

Lane 3:
His/lif-tagged mouse Saa3 recombinant protein (aa 19-122) at 0.01 µg

Secondary

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

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