abcam

ab190838

Anti-Pentraxin 3/PTX3 antibody [EPR18678-105]

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	EPR18678-105
Purification technique	Affinity purification Protein A
Concentration	0.616 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/60
Notes	-

Target data

See full target information PTX3

Function	Plays a role in the regulation of innate resistance to pathogens, inflammatory reactions, possibly clearance of self-components and female fertility.

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	Pentraxin 3 (PTX3) also known as TSG-14 or TNF-Inducible Gene 14 Protein is an important component of the immune system. Mechanically PTX3 functions as part of the body's defense mechanism against pathogens and tissue damage. It has a molecular weight of approximately 42 kDa and is expressed in a range of tissues such as the immune cells endothelium and epithelial cells. Upon inflammatory signals these cells secrete PTX3 which quickly identifies microbial molecules and apoptotic cells.
Biological function summary	The role of PTX3 extends beyond simple pathogen recognition. It is involved in the regulation of inflammation and tissue homeostasis. As part of the pentraxin superfamily PTX3 plays a role in the formation of complexes with other molecules such as complement components. These interactions modulate the complement cascade an essential part of the innate immune response and influence the resolution of inflammation. PTX3 also interacts with extracellular matrix components stabilizing tissue structure during immune response.
Pathways	PTX3 integrates into vital immune signaling networks. It actively participates in the complement pathway where it regulates the activity of C1q and C3 key complement proteins. Additionally PTX3 connects with the Toll-like receptor (TLR) signaling pathway. This interaction helps modulate the body's response to microbial infections by influencing the activity of TLR4 among other related proteins which are fundamental in recognizing pathogen-associated molecular patterns.

Associated diseases and disorders	PTX3 is linked to various inflammatory conditions. High levels of PTX3 often indicate a response to cardiovascular diseases such as atherosclerosis. In this context its interactions with C1q highlight its role in modulating disease progression. PTX3 also relates to autoimmune diseases like rheumatoid arthritis where its increased expression correlates with disease severity. In rheumatoid arthritis PTX3 can interact with pro-inflammatory cytokines like TNF-alpha exacerbating the inflammatory process.

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

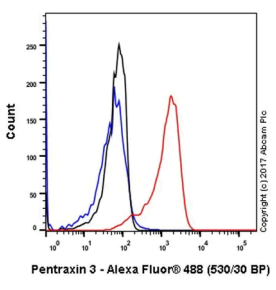
We do not recommend this combination. It is not covered by our product promise.

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.

5 product images

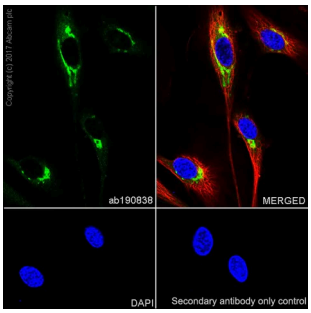


Flow Cytometry (Intracellular) - Anti-Pentraxin 3/PTX3 antibody [EPR18678-105] (ab190838)

Pentraxin 3/PTX3 Flow Cytometry (Intracellular) staining using rabbit Anti-Pentraxin 3/PTX3 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized HUVEC (human umbilical vein endothelial cell line) cells labeling Pentraxin 3/PTX3 with ab190838 at 1/60 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabelled control (cells without incubation with primary

antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluorr® 488) (ab150077), at 1/2000 dilution was used as the secondary antibody.

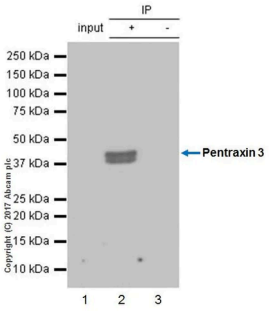


Immunocytochemistry/ Immunofluorescence - Anti-Pentraxin 3/PTX3 antibody [EPR18678-105] (ab190838)

Pentraxin 3/PTX3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Pentraxin 3/PTX3 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HUVEC (human umbilical vein endothelial cell line) cells labeling Pentraxin 3/PTX3 with ab190838 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on HUVEC cell line.
The nuclear counterstain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) secondary antibody at 1/200 dilution (red).

-ve control: PBS only, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.



Immunoprecipitation - Anti-Pentraxin 3/PTX3 antibody [EPR18678-105] (ab190838)

Pentraxin 3/PTX3 was immunoprecipitated from 0.35 mg of HUVEC (human umbilical vein endothelial cell line) whole cell lysate with ab190838 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab190838 at 1/500 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/1000 dilution.

Lane 1: HUVEC whole cell lysate 10 µg (Input).
Lane 2: ab190838 IP in HUVEC whole cell lysate.
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab190838 in HUVEC whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.
Exposure time: 3 minutes.

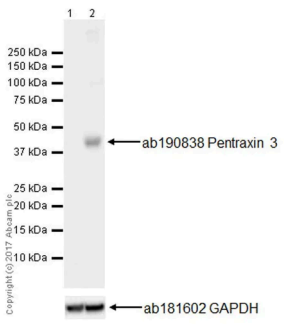
The molecular weight observed is consistent with what has been described in the literature (PMID: 17389238).

All lanes:
Immunoprecipitation - Anti-Pentraxin 3/PTX3 antibody [EPR18678-105] (ab190838)

Developed using the ECL technique.

Predicted band size: 41 kDa

Observed band size: 42 kDa, 47 kDa



Western blot - Anti-Pentraxin 3/PTX3 antibody [EPR18678-105] (ab190838)

Pentraxin 3/PTX3 Western blot staining using rabbit Anti-Pentraxin 3/PTX3 antibody

Blocking and dilution buffer: 5% NFDM/TBST
All lanes:
Western blot - Anti-Pentraxin 3/PTX3 antibody [EPR18678-105] (ab190838) at 1/1000 dilution

Lane 1:
Untreated HUVEC (human umbilical vein endothelial cell line) whole cell lysate at 20 µg

Lane 2:
HUVEC treated with 0.5 ug/ml LPS for 4 hours followed by 300 ng/ml BFA for 20 hours, whole cell lysate at 20 µg

Secondary

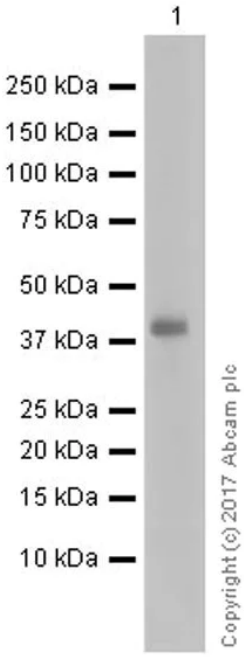
All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Developed using the ECL technique.

Predicted band size: 41 kDa

Observed band size: 42 kDa

Exposure time: 1s



Western blot - Anti-Pentraxin 3/PTX3 antibody [EPR18678-105] (ab190838)

Blocking and dilution buffer: 5% NFDM/TBST
Higher concentration of this antibody is required for the detection of Pentraxin 3/PTX3 in untreated cells in WB.

All lanes:
Western blot - Anti-Pentraxin 3/PTX3 antibody [EPR18678-105] (ab190838) at 1/200 dilution

All lanes:
HUVEC (human umbilical vein endothelial cell line) whole cell lysate at 20 µg

Secondary

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

Developed using the ECL technique.

Predicted band size: 41 kDa

Observed band size: 42 kDa

Exposure time: 1min

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