abcam

ab251218

Anti-Thrombopoietin antibody [EPR14948] - 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	EPR14948
Purification technique	Affinity purification Protein A
Concentration	1.027 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-

Notes	-

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

WB

Tested

Species	Recombinant full length protein - Human, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	

Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

Target data

See full target information THPO

Function	Lineage-specific cytokine affecting the proliferation and maturation of megakaryocytes from their committed progenitor cells. It acts at a late stage of megakaryocyte development. It may be the major physiological regulator of circulating platelets.

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

ab251218 is the carrier-free version of ab196026.

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	Thrombopoietin also known as TPO is an important glycoprotein hormone with a mass of about 70 kDa. It is primarily produced in the liver but can also be found in the kidneys and bone marrow stromal cells. Thrombopoietin binds to and activates its receptor c-Mpl which is present on hematopoietic progenitor cells. This protein has a significant role in regulating the production of blood platelets by stimulating the proliferation and differentiation of megakaryocytes the precursor cells for platelets.
Biological function summary	Thrombopoietin functions in hematopoiesis by supporting the maturation of megakaryocytes. It operates independently but can interact with other factors to optimize platelet production. Although it does not form a part of a large protein complex it is essential for the proper function of hematopoietic progenitors across several stages of differentiation. Its activity ensures the maintenance of platelet levels in the bloodstream therefore preventing conditions like thrombocytopenia.
Pathways	Thrombopoietin plays a critical role in the megakaryocyte/platelet lineage pathway. It directly influences the JAK-STAT (Janus kinase-signal transducer and activator of transcription) signaling pathway which is vital for driving the cell cycle and promoting cell survival. Thrombopoietin shares a functional connection with EPO (erythropoietin) which is involved in red blood cell production although they act on different lineage-specific progenitors.
Associated diseases and disorders	Thrombopoietin is intricately linked to conditions like thrombocytopenia where there are abnormally low platelet counts and thrombocythemia characterized by elevated platelet levels. Dysregulation of Thrombopoietin production or its receptor activity can lead to these disorders. It has a relationship with other hematopoietic growth factors like GM-CSF (granulocyte-macrophage colony-stimulating factor) which can also influence the disorders of blood cell lines. Understanding its signaling pathways provides insights into therapeutic targets for diseases involving platelet imbalances.

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.

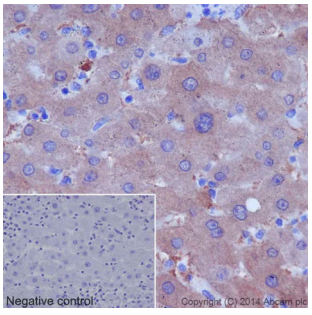
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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6 product images



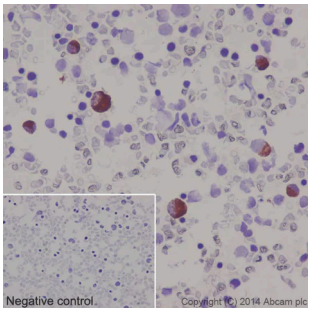
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thrombopoietin antibody [EPR14948] - BSA and Azide free (ab251218)

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

This data was developed using ab196026, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human liver tissue labeling Thrombopoietin with ab196026 at 1/4000 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution and counter-stained with Hematoxylin. (inset: negative control).

Note: Cytoplasm staining on human liver tissue was observed.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



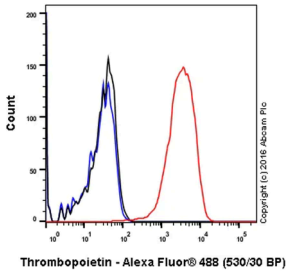
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thrombopoietin antibody [EPR14948] - BSA and Azide free (ab251218)

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

This data was developed using ab196026, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human bone marrow tissue labeling Thrombopoietin with ab196026 at 1/4000 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution and counter-stained with Hematoxylin. (inset: negative control).

Note: Cytoplasm staining on human bone marrow tissue was observed.

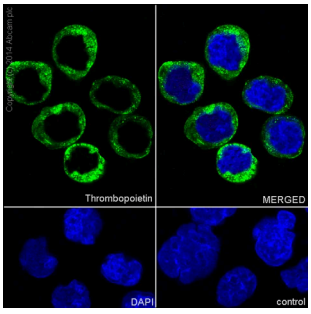
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Thrombopoietin antibody [EPR14948] - BSA and Azide free (ab251218)

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

This data was developed using ab196026, the same antibody clone in a different buffer formulation.
Intracellular Flow Cytometry analysis of Jurkat (human acute T cell leukemia) labelling Thrombopoietin with purified ab196026 at 1/40 (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Alexa Fluor® 488 goat anti-rabbit IgG (1/2000) was used as the secondary antibody. Black - Isotype control, rabbit monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.

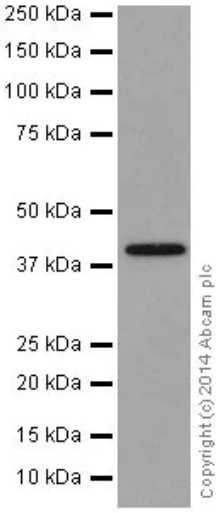


Immunocytochemistry/ Immunofluorescence - Anti-Thrombopoietin antibody [EPR14948] - BSA and Azide free (ab251218)

Thrombopoietin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Thrombopoietin antibody

This data was developed using ab196026, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of Jurkat cells (4% Paraformaldehyde-fixed, 0.1% tritonX-100 permeabilized) labeling Thrombopoietin with ab196026 at 1/50 dilution followed by Goat anti rabbit IgG (AlexaFluor® 488) (ab150077) secondary at 1/400 dilution and counter-stained with DAPI (blue).

Note: Cytoplasm staining on Jurkat cell line was observed.



Western blot - Anti-Thrombopoietin antibody [EPR14948] - BSA and Azide free (ab251218)

Thrombopoietin Western blot staining of Human fetal liver using rabbit Anti-Thrombopoietin antibody

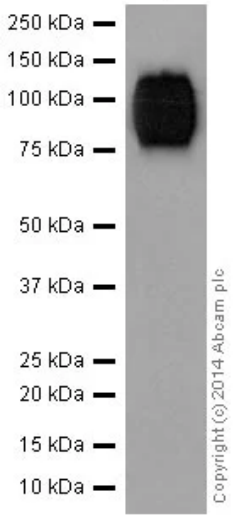
This data was developed using ab196026, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-Thrombopoietin antibody [EPR14948] (ab196026) at 1/1000 dilution

All lanes:
Human fetal liver at 10 µg

Secondary

All lanes:
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 37 kDa



Western blot - Anti-Thrombopoietin antibody [EPR14948] - BSA and Azide free (ab251218)

This data was developed using ab196026, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-Thrombopoietin antibody [EPR14948] (ab196026) at 1/5000 dilution

All lanes:
Thrombopoietin recombinant protein at 0.01 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution

Predicted band size: 37 kDa

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