

Anti-Thrombopoietin Picoband Antibody

Catalog # ABO10281

Product Information

Application	WB, IHC-P, E
Primary Accession	P40226
Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Thrombopoietin(Thpo) detection. Tested with WB, IHC-P, ELISA in Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	21832
Other Names	Thrombopoietin, C-mpl ligand, ML, Megakaryocyte colony-stimulating factor, Megakaryocyte growth and development factor, MGDF, Myeloproliferative leukemia virus oncogene ligand, Thpo
Calculated MW	37836
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Mouse, Rat, By Heat ELISA , 0.1-0.5 μ g/ml, Mouse, - Western blot, 0.1-0.5 μ g/ml, Mouse
Subcellular Localization	Secreted.
Tissue Specificity	Found mainly in the liver, kidney and skeletal muscle.
Source	Eukaryota
Protein Name	Thrombopoietin
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	E. coli-derived mouse Thrombopoietin recombinant protein (Position: S22-H259). Mouse Thrombopoietin shares 79.3% and 92.9% amino acid (aa) sequence identity with human and rat Thrombopoietin, respectively.
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	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.
Cellular Location	Secreted {ECO:0000250 UniProtKB:P40225}.
Tissue Location	Found mainly in the liver, kidney and skeletal muscle

Background

Thrombopoietin (THPO), also known as megakaryocyte growth and development factor (MGDF), is a protein that in humans is encoded by the THPO gene. Megakaryocytopoiesis is the cellular development process that leads to platelet production. The main functional protein encoded by this gene is a humoral growth factor that is necessary for megakaryocyte proliferation and maturation, as well as for thrombopoiesis. This protein is the ligand for MLP/C_MPL, the product of myeloproliferative leukemia virus oncogene. Mutations in this gene are the cause of thrombocythemia 1. Alternative promoter usage and differential splicing result in multiple transcript variants differing in the 5' UTR and/or coding region. Multiple AUG codons upstream of the main open reading frame (ORF) have been identified, and these upstream AUGs inhibit translation of the main ORF at different extent.

Images

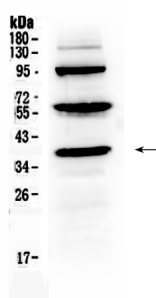


Figure 1. Western blot analysis of Thrombopoietin using anti-Thrombopoietin antibody (ABO10281). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: mouse liver tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Thrombopoietin antigen affinity purified polyclonal antibody (Catalog # ABO10281) at 0.5 µg/mL overnight at 4 °C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Thrombopoietin at approximately 38KD. The expected band size for Thrombopoietin is at 38KD.

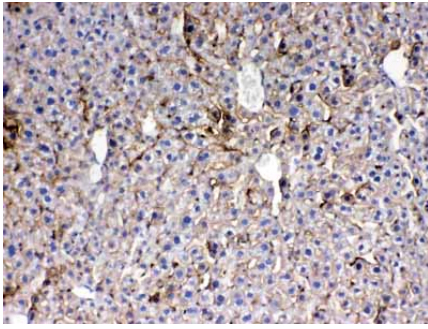


Figure 2. IHC analysis of Thrombopoietin using anti-Thrombopoietin antibody (ABO10281).Thrombopoietin was detected in paraffin-embedded section of mouse liver tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti- Thrombopoietin Antibody (ABO10281) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

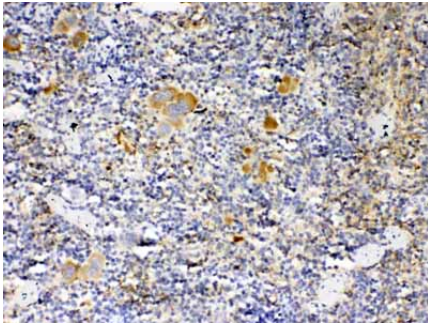


Figure 3. IHC analysis of Thrombopoietin using anti-Thrombopoietin antibody (ABO10281).Thrombopoietin was detected in paraffin-embedded section of mouse spleen tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti- Thrombopoietin Antibody (ABO10281) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

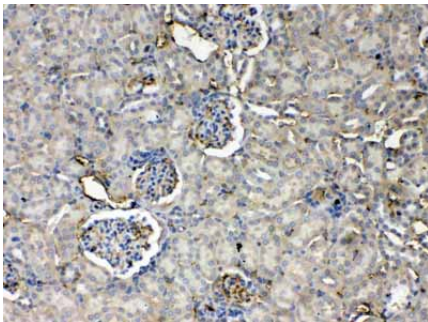


Figure 4. IHC analysis of Thrombopoietin using anti-Thrombopoietin antibody (ABO10281).Thrombopoietin was detected in paraffin-embedded section of mouse kidney tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti- Thrombopoietin Antibody (ABO10281) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

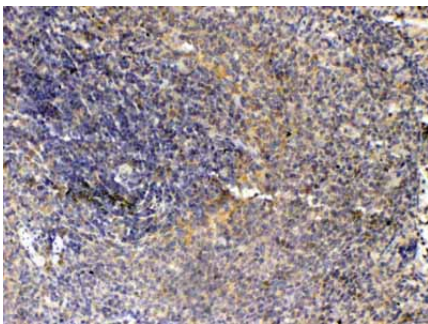
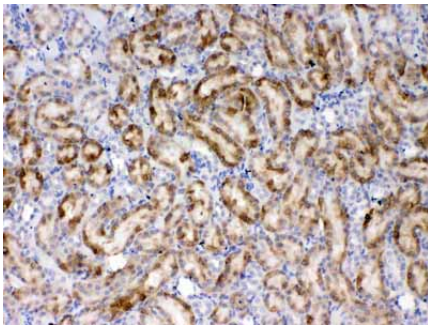


Figure 5. IHC analysis of Thrombopoietin using anti-Thrombopoietin antibody (ABO10281).Thrombopoietin was detected in paraffin-embedded section of rat spleen tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti- Thrombopoietin Antibody (ABO10281) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

Figure 6. IHC analysis of Thrombopoietin using anti-Thrombopoietin antibody (ABO10281).Thrombopoietin was detected in paraffin-embedded section of rat kidney



tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti- Thrombopoietin Antibody (ABO10281) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

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