

Anti-Thioredoxin/TRX/Txn Antibody Picoband®

Catalog Number: A01219-1

About Txn

Thioredoxin is a class of small redox proteins known to be present in all organisms. It is mapped to 9q31.3. The protein encoded by this gene acts as a homodimer and is involved in many redox reactions. The encoded protein is active in the reversible S-nitrosylation of cysteines in certain proteins, which is part of the response to intracellular nitric oxide. This protein is found in the cytoplasm. Two transcript variants encoding different isoforms have been found for this gene.

Overview

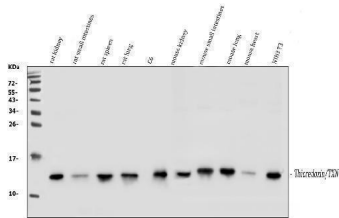
Product Name	Anti-Thioredoxin/TRX/Txn Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Thioredoxin/TRX/Txn Antibody Picoband® catalog # A01219-1. Tested in ELISA, IF, IHC, ICC, WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P10639

Technical Details

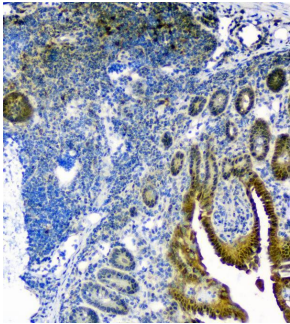
Immunogen	E. coli-derived mouse Thioredoxin TRX recombinant protein (Position: V2-A105).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Immunocytochemistry/Immunofluorescence, 2ug/ml ELISA, 0.1-0.5ug/ml

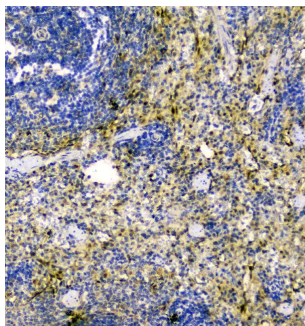
Anti-Thioredoxin/TRX/Txn Antibody Picoband® (A01219-1) Images



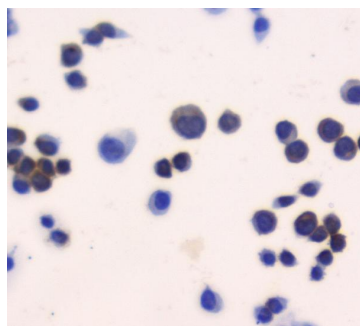
Western blot analysis of Thioredoxin TRX using anti-Thioredoxin TRX antibody (A01219-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat kidney tissue lysates, Lane 2: rat small intestine tissue lysates, Lane 3: rat spleen tissue lysates, Lane 4: rat lung tissue lysates, Lane 5: rat C6 whole cell lysates, Lane 6: mouse kidney tissue lysates, Lane 7: mouse small intestine tissue lysates, Lane 8: mouse lung tissue lysates, Lane 9: mouse heart tissue lysates, Lane 10: mouse NIH/3T3 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-Thioredoxin TRX antigen affinity purified polyclonal antibody (Catalog # A01219-1) at 0.5 ug/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 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Thioredoxin TRX at approximately 12 kDa. The expected band size for Thioredoxin TRX is at 12 kDa.



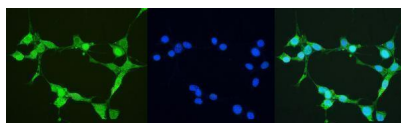
IHC analysis of Thioredoxin TRX using anti-Thioredoxin TRX antibody (A01219-1). Thioredoxin TRX was detected in paraffin-embedded section of mouse small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Thioredoxin TRX Antibody (A01219-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of Thioredoxin TRX using anti-Thioredoxin TRX antibody (A01219-1). Thioredoxin TRX was detected in paraffin-embedded section of rat spleen tissue. 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 1ug/ml rabbit anti-Thioredoxin TRX Antibody (A01219-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of Thioredoxin TRX using anti-Thioredoxin TRX antibody (A01219-1). Thioredoxin TRX was detected in immunocytochemical section of LLC cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 1ug/ml rabbit anti-Thioredoxin TRX Antibody (A01219-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IF analysis of Thioredoxin TRX using anti-Thioredoxin TRX antibody (A01219-1). Thioredoxin TRX was detected in immunocytochemical section of NIH3T3 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-Thioredoxin TRX Antibody (A01219-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

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