

Anti-Tropomyosin(Sarcomeric) Antibody (Monoclonal, CH1)

Catalog Number: MA1097

About Tpm1

Tropomyosin is an alpha-helical, parallel, two-chain coiled coil which binds along the length of actin filaments in both muscle and non-muscle cells. This gene associates N-terminus to C-terminus to form a continuous strand along both sides of the actin filament and regulates its function. Tropomyosin contributes to most, if not all, functions of the actin cytoskeleton, and its role is essential for the viability of a wide range of organisms. The ability of tropomyosin to contribute to the many functions of the actin cytoskeleton is related to the temporal and spatial regulation of expression of tropomyosin isoforms.

Overview

Product Name	Anti-Tropomyosin(Sarcomeric) Antibody (Monoclonal, CH1)
Reactive Species	Chicken, Human, Mouse, Rat
Description	Mouse IgG monoclonal antibody for Tropomyosin (Sarcomeric), tropomyosin 1 (alpha) (TPM1) detection. Tested with WB, IHC-P, IHC-F in Human;rat;chicken. No cross reactivity with other proteins.
Application	IHC, WB
Clonality	Monoclonal CH1
Formulation	Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN3 as preservative.
Storage Instructions	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.
Host	Mouse
Uniprot ID	P04692

Technical Details

Immunogen	Chicken muscle tropomyosin.
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Predicted Reactive Species	Bovine
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P) and IHC(F).
Cross Reactivity	No cross reactivity with other proteins
Isotype	Mouse IgG1
Form	Lyophilized
Concentration	Add 1ml of PBS buffer will yield a concentration of 100ug/ml.
Purification	Ascites
Suggested Dilutions	Immunohistochemistry(Paraffin-embedded Section), 2-4µg/ml, Human, rat, chicken, By Heat Immunohistochemistry(Frozen Section), 2-4µg/ml, Human, rat, chicken, - Western blot, 1-2µg/ml, Human, rat, chicken For protocols please visit https://www.bosterbio.com/protocol-and-troubleshooting/

Anti-Tropomyosin(Sarcomeric) Antibody (Monoclonal, CH1) (MA1097) Images

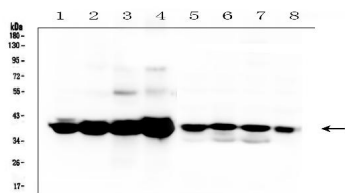


Figure 1. Western blot analysis of Tropomyosin(Sarcomeric) using anti- Tropomyosin(Sarcomeric) antibody (MA1097).

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: rat heart tissue lysates,
- Lane 2: rat skeletal muscle tissue lysates,
- Lane 3: mouse heart tissue lysates,
- Lane 4: mouse skeletal muscle tissue lysates,
- Lane 5: human Hela whole cell lysates,
- Lane 6: human U2OS whole cell lysates,
- Lane 7: human A549 whole cell lysates,
- Lane 8: human Caco-2 whole cell 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 mouse anti-Tropomyosin(Sarcomeric) antigen affinity purified monoclonal antibody (Catalog # MA1097) at 0.5 µg/mL

overnight at 4Å°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse 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 (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Tropomyosin(Sarcomeric) at approximately 39KD. The expected band size for Tropomyosin(Sarcomeric) is at 33KD.

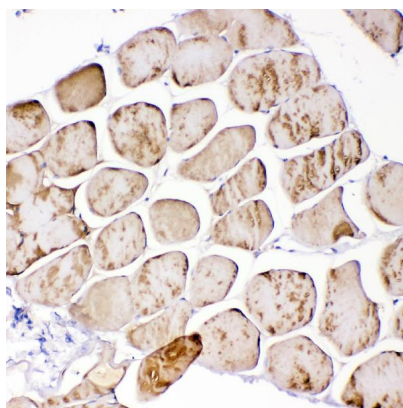


Figure 2. IHC analysis of Tropomyosin(Sarcomeric) using anti- Tropomyosin(Sarcomeric) antibody (MA1097).

Tropomyosin(Sarcomeric) was detected in paraffin-embedded section of human skeletal muscle 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 1½g/ml mouse anti-Tropomyosin(Sarcomeric) Antibody (MA1097) overnight at 4Å°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37Å°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.

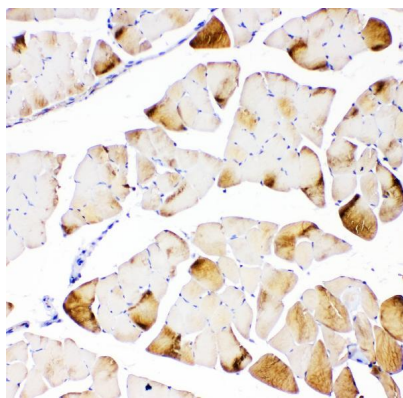


Figure 3. IHC analysis of Tropomyosin(Sarcomeric) using anti- Tropomyosin(Sarcomeric) antibody (MA1097).

Tropomyosin(Sarcomeric) was detected in paraffin-embedded section of mouse skeletal muscle 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 1½g/ml mouse anti-Tropomyosin(Sarcomeric) Antibody (MA1097) overnight at 4Å°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37Å°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.

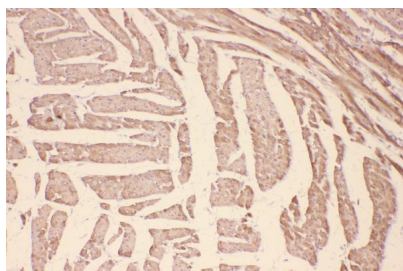


Figure 4. IHC analysis of Tropomyosin(Sarcomeric) using anti- Tropomyosin(Sarcomeric) antibody (MA1097).

Tropomyosin(Sarcomeric) was detected in paraffin-embedded section of rat heart 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 1½g/ml mouse anti-Tropomyosin(Sarcomeric) Antibody (MA1097) overnight at 4Å°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37Å°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.

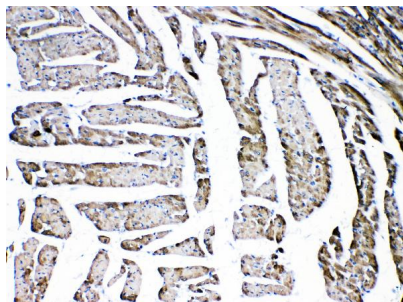


Figure 5. IHC analysis of Tropomyosin(Sarcomeric) using anti- Tropomyosin(Sarcomeric) antibody (MA1097).

Tropomyosin(Sarcomeric) was detected in paraffin-embedded section of rat heart 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 1 μ g/ml mouse anti-Tropomyosin(Sarcomeric) Antibody (MA1097) overnight at 4 ^\circ C. Biotinylated goat anti-mouse 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)(Catalog # SA1021) with DAB as the chromogen.

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