

## Tropomyosin 1 Rabbit mAb

Catalog No: #49942

Package Size: #49942-1 50ul #49942-2 100ul

Orders: [order@signalwayantibody.com](mailto:order@signalwayantibody.com)Support: [tech@signalwayantibody.com](mailto:tech@signalwayantibody.com)

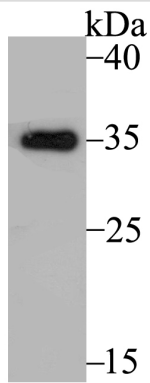
## Description

Product Name	Tropomyosin 1 Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	JG38-66
Purification	ProA affinity purified
Applications	WB,IHC,FC
Species Reactivity	Hu, Ms, Rt
Immunogen Description	Recombinant protein within human Tropomyosin 1 aa 100-300.
Other Names	AA986836 antibody AI854628 antibody Alpha tropomyosin antibody alpha-TM antibody Alpha-tropomyosin antibody C15orf13 antibody cardiomyopathy, hypertrophic 3 antibody CMD1Y antibody CMH3 antibody HTM alpha antibody HTM-alpha antibody OTTHUMP00000163688 antibody sarcomeric tropomyosin kappa antibody TM2 antibody Tmpa antibody TMSA antibody Tpm-1 antibody TPM1 antibody TPM1_HUMAN antibody tropomyosin 1 (alpha) antibody tropomyosin 1 (alpha) isoform 1 antibody tropomyosin 1 (alpha) isoform 2 antibody tropomyosin 1 (alpha) isoform 3 antibody tropomyosin 1 (alpha) isoform 4 antibody tropomyosin 1 (alpha) isoform 5 antibody tropomyosin 1 (alpha) isoform 6 antibody tropomyosin 1 (alpha) isoform 7 antibody Tropomyosin 1 antibody Tropomyosin alpha 1 chain antibody Tropomyosin alpha-1 chain antibody Tropomyosin, skeletal muscle alpha antibody Tropomyosin-1 antibody
Accession No.	Swiss-Prot#:P09493
Uniprot	P09493
GeneID	7168;
Calculated MW	33 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

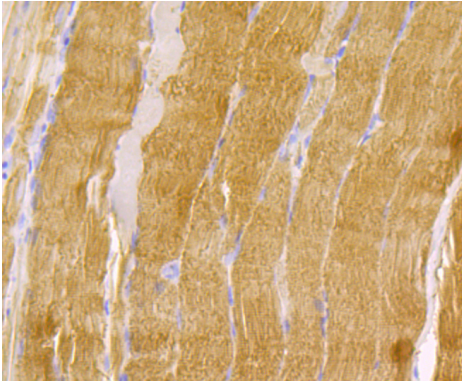
## Application Details

WB: 1:500-1:2,000 IHC: 1:50-1:200 FC: 1:50-1:100

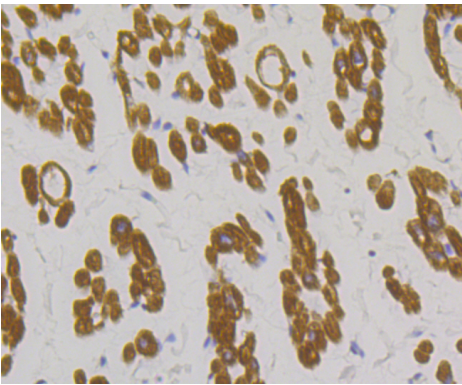
## Images



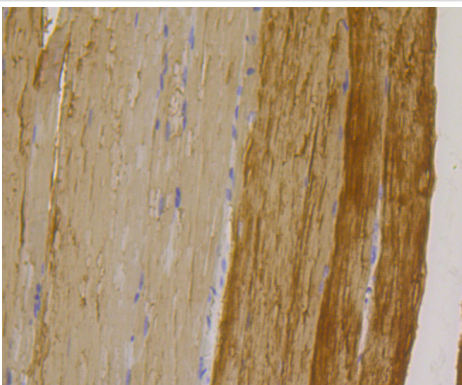
Western blot analysis of Tropomyosin 1 on rat heart tissue using anti-Tropomyosin 1 antibody at 1/1,000 dilution.



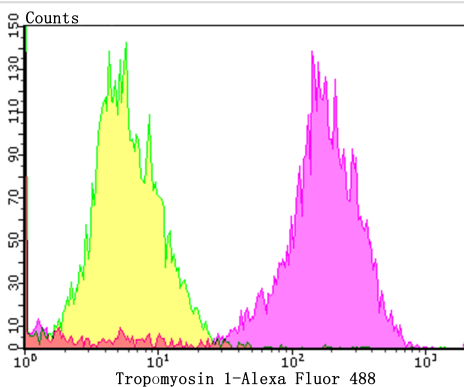
Immunohistochemical analysis of paraffin-embedded rat smooth muscle tissue using anti-Tropomyosin 1 antibody. Counter stained with hematoxylin.



Immunohistochemical analysis of paraffin-embedded human heart tissue using anti-Tropomyosin 1 antibody. Counter stained with hematoxylin.



Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue using anti-Tropomyosin 1 antibody. Counter stained with hematoxylin.



Flow cytometric analysis of MCF-7 cells with Tropomyosin 1 antibody at 1/100 dilution (purple) compared with an unlabelled control (cells without incubation with primary antibody; yellow). Alexa Fluor 488-conjugated goat anti-rabbit IgG was used as the secondary antibody.

## Background

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Tropomyosins are a group of structural proteins. Tropomyosins are present in virtually all eukaryotic cells, both muscle and non-muscle, where they bind Actin filaments and function to modulate Actin-Myosin interaction and stabilize Actin filament structure. Tropomyosin  $\alpha$  is encoded by the TPM1 gene, which maps to human chromosome 15q22.1 and undergoes alternative splicing to generate at least four isoforms, including skeletal muscle (isoform 1), smooth muscle (isoform 2), fibroblast/TM3 (isoform 3) and isoform 4. Tropomyosin  $\beta$  is encoded by the TPM2 gene, which maps to human chromosome 9p13.3 and undergoes alternative splicing to generate three isoforms, including skeletal muscle (isoform 1), non-muscle/fibroblast TM36/epithelial TMe1 (isoform 2) and non-muscle (isoform 3). Troponin I binds Tropomyosin at a specific region and the association of Tropomyosin-Troponin with Actin filaments may increase the rigidity of Actin filaments. Tropomyosin also interacts with Caldesmon to regulate smooth muscle contraction.

## References

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Note: This product is for in vitro research use only