abcam

Product datasheet

Anti-Tropomyosin 2 antibody [EPR12846] - C-terminal ab180176

Recombinant RabMAb

1 References 4 Images

Overview

Product name	Anti-Tropomyosin 2 antibody [EPR12846] - C-terminal
Description	Rabbit monoclonal [EPR12846] to Tropomyosin 2 - C-terminal
Host species	Rabbit
Tested applications	**Suitable for:** IP, WB **Unsuitable for:** Flow Cyt,ICC/IF or IHC-P
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic peptide within Human Tropomyosin 2 aa 200 to the C-terminus (internal sequence) (Cysteine residue). The exact sequence is proprietary. Database link: **P07951**
Positive control	WB: HeLa, HT-1080, fetal muscle and heart lysates, Human fetal muscle lysate. MYC and DDK-tagged Recombinant Human TPM2 protein (Full length)
General notes	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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture

	supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR12846
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab180176 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

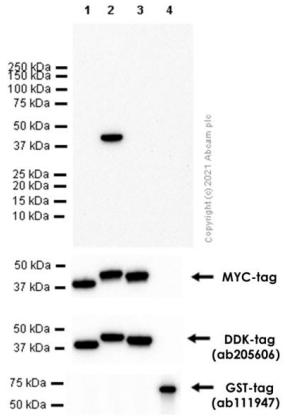
Application	Abreviews	Notes
IP		1/10 - 1/100.
WB		1/1000 - 1/5000. Predicted molecular weight: 33 kDa.

Application notes Is unsuitable for Flow Cyt,ICC/IF or IHC-P.

Target

Function	Binds to actin filaments in muscle and non-muscle cells. Plays a central role, in association with the troponin complex, in the calcium dependent regulation of vertebrate striated muscle contraction. Smooth muscle contraction is regulated by interaction with caldesmon. In non-muscle cells is implicated in stabilizing cytoskeleton actin filaments. The non-muscle isoform may have a role in agonist-mediated receptor internalization.
Tissue specificity	Present in primary breast cancer tissue, absent from normal breast tissue.
Involvement in disease	Nemaline myopathy 4 (NEM4) [MIM:609285]: A form of nemaline myopathy. Nemaline myopathies are muscular disorders characterized by muscle weakness of varying severity and onset, and abnormal thread-or rod-like structures in muscle fibers on histologic examination. Nemaline myopathy type 4 presents from infancy to childhood with hypotonia and moderate-to-severe proximal weakness with minimal or no progression. Major motor milestones are delayed but independent ambulation is usually achieved, although a wheelchair may be needed in later life. Note=The disease is caused by mutations affecting the gene represented in this entry. Arthrogryposis, distal, 1A (DA1A) [MIM:108120]: A form of distal arthrogryposis, a disease characterized by congenital joint contractures that mainly involve two or more distal parts of the limbs, in the absence of a primary neurological or muscle disease. Distal arthrogryposis type 1 is characterized largely by camptodactyly and clubfoot. Hypoplasia and/or absence of some interphalangeal creases is common. The shoulders and hips are less frequently affected. Note=The disease is caused by mutations affecting the gene represented in this entry.
Sequence similarities	Belongs to the tropomyosin family.
Domain	The molecule is in a coiled coil structure that is formed by 2 polypeptide chains. The sequence exhibits a prominent seven-residues periodicity.
Post-translational modifications	Phosphorylated on Ser-61 by PIK3CG. Phosphorylation on Ser-61 is required for ADRB2 internalization.
Cellular localization	Cytoplasm > cytoskeleton.

Images



Western blot - Anti-Tropomyosin 2 antibody [EPR12846] - C-terminal (ab180176)

All lanes : Anti-Tropomyosin 2 antibody [EPR12846] - C-terminal (ab180176) at 1/1000 dilution

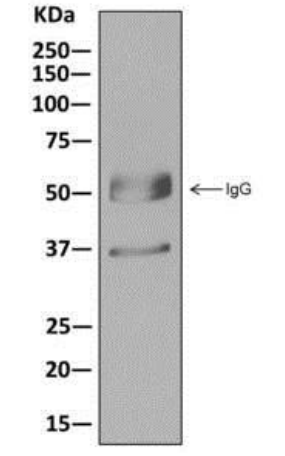
Lane 1 : MYC and DDK-tagged Recombinant Human TPM1 protein (Full length)
Lane 2 : MYC and DDK-tagged Recombinant Human TPM2 protein (Full length)
Lane 3 : MYC and DDK-tagged Recombinant Human TPM3 protein (Full length)
Lane 4 : GST-tagged Recombinant Human TPM4 protein (Full length)

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 33 kDa
Observed band size: 42 kDa

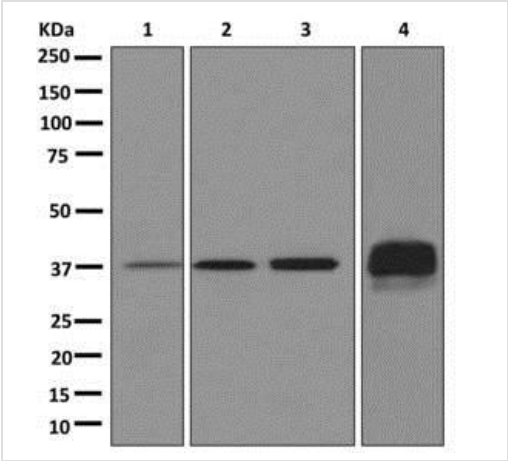
Exposure time: 180 seconds

Blocking buffer and concentration: 5% NFDM/TBST



Immunoprecipitation - Anti-Tropomyosin 2 antibody [EPR12846] - C-terminal (ab180176)

Western blot analysis on immunoprecipitation pellet from Human fetal muscle lysate labeling Tropomyosin 2 using ab180176 at 1/10.



Western blot - Anti-Tropomyosin 2 antibody [EPR12846] - C-terminal (ab180176)

All lanes : Anti-Tropomyosin 2 antibody [EPR12846] - C-terminal (ab180176) at 1/1000 dilution

Lane 1 : Fetal heart lysate
Lane 2 : HeLa cell lysate
Lane 3 : HT-1080 cell lysate
Lane 4 : Fetal muscle lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Standard HRP labeled goat anti-rabbit at 1/2000 dilution

Developed using the ECL technique.

Predicted band size: 33 kDa

Anti-Tropomyosin 2 antibody [EPR12846] - C-terminal (ab180176)

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