


Product datasheet

Anti-Tropomyosin 3 antibody ab180813

[2 References](#) [3 Images](#)

Overview

Product name	Anti-Tropomyosin 3 antibody
Description	Rabbit polyclonal to Tropomyosin 3
Host species	Rabbit
Tested applications	Suitable for: IHC-P, WB, ICC/IF
Species reactivity	Reacts with: Human Predicted to work with: Cow, Pig 
Immunogen	Recombinant full length protein corresponding to Human Tropomyosin 3 aa 1-285. Sequence: MMEAIAKKKMQ MLKLDKENAL DRAEQAEAEQ KQAEERSKQL EDELAAMQKK LKGTEDELDK YSEALKDAQE KLELAEKKAA DAAEAVASLN RRIQLVEEEL DRAQERLATA LQKLEEAeka ADESERGMKV IENRALKDEE KMELQEIQLK EAKHIAEEAD RKYEEVARKL VIIEGDLERT EERAELAESK CSELEEEELKN VTNNLKSLEA QAEKYSQKED KYEEEEIKILT DKLKEAETRA EFAERSVAKL EKTIDDLEDE LYAQKLKYKA ISEELDHALN DMTSI Database link: P06753 Run BLAST with Run BLAST with
Positive control	293T cell and A431 cell lysates.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

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: 7.30 Preservative: 0.02% Sodium azide Constituents: 50% Glycerol, 49% PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab180813 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
IHC-P		1/50 - 1/200. ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/500 - 1/2000. Predicted molecular weight: 33 kDa.
ICC/IF		Use at an assay dependent concentration.

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.

Involvement in disease Defects in TPM3 are the cause of nemaline myopathy type 1 (NEM1) [MIM:609284]. A form of nemaline myopathy with autosomal dominant or recessive inheritance. 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. Autosomal dominant nemaline myopathy type 1 is characterized by a moderate phenotype with onset between birth and early second decade of life. Weakness is diffuse and symmetric with slow progression often with need for a wheelchair in adulthood. The autosomal recessive form has onset at birth with moderate-to-severe hypotonia and diffuse weakness. In the most severe cases, death can occur before 2 years. Less severe cases have delayed major motor milestones, and these patients may walk, but often need a wheelchair before 10 years.

Defects in TPM3 are a cause of thyroid papillary carcinoma (TPC) [MIM:188550]. TPC is a common tumor of the thyroid that typically arises as an irregular, solid or cystic mass from otherwise normal thyroid tissue. Papillary carcinomas are malignant neoplasm characterized by the formation of numerous, irregular, finger-like projections of fibrous stroma that is covered with a surface layer of neoplastic epithelial cells. Note=A chromosomal aberration involving TPM3 is found in thyroid papillary carcinomas. A rearrangement with NTRK1 generates the TRK fusion transcript by fusing the amino end of isoform 2 of TPM3 to the 3'-end of NTRK1.

Sequence similarities

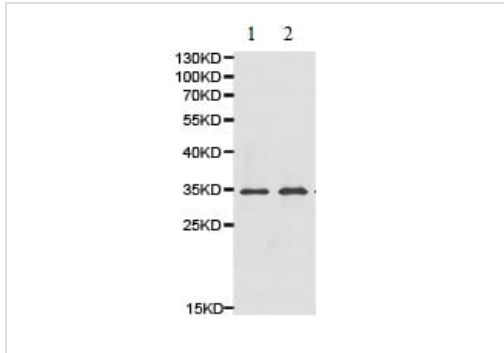
Belongs to the tropomyosin family.

Domain

The molecule is in a coiled coil structure that is formed by 2 polypeptide chains. The sequence exhibits a prominent seven-residues periodicity.

Cellular localization

Cytoplasm > cytoskeleton.

Images

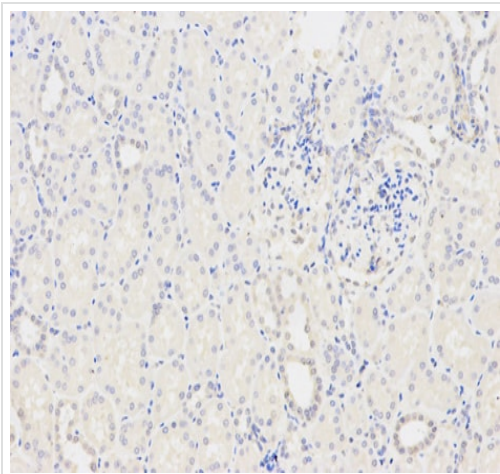
Western blot - Anti-Tropomyosin 3 antibody (ab180813)

All lanes : Anti-Tropomyosin 3 antibody (ab180813) at 1/500 dilution

Lane 1 : 293T cell lysate

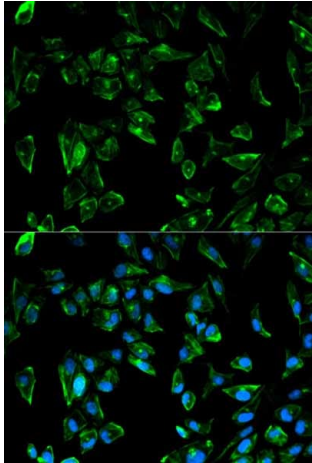
Lane 2 : A431 cell lysate

Predicted band size: 33 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tropomyosin 3 antibody (ab180813)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labelling Tropomyosin 3 with ab180813 at 1/200. Magnification: 200x.



Immunocytochemistry/Immunofluorescence analysis of HeLa cells labeling TPM3 with ab180813 at a dilution of 1/50. Nuclear DNA was labelled with DAPI (shown in blue).

Immunocytochemistry/ Immunofluorescence - Anti-Tropomyosin 3 antibody (ab180813)

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