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TPM2 Rabbit pAb

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Catalog # AP54853

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P07951
Reactivity	Human, Mouse
Predicted	Rat, Dog, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Calculated MW	32851
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TPM2
Epitope Specificity	11-130/284
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm, cytoskeleton.
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-like or rod-shaped 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.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Tropomyosin is a dimeric coiled coil protein that binds along the length of actin filaments. It is associated with the thin filaments of muscle cells and the microfilaments of nonmuscle cells. Chicken embryo fibroblasts (CEF) contain five isoforms of tropomyosin (a, b, 1, 2, and 3), identified as such by their different apparent molecular masses after separation by SDS-PAGE, but similar biochemical properties, such as resistance to heat and organic solvents, the ability to bind to F actin filaments, and the lack of proline and tryptophan.

Additional Information

Gene ID	7169
Other Names	Tropomyosin beta chain, Beta-tropomyosin, Tropomyosin-2, TPM2, TMSB
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	TPM2
Synonyms	TMSB
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.
Cellular Location	Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:P58775}. Note=Associates with F-actin stress fibers. {ECO:0000250|UniProtKB:P58775}
Tissue Location	Present in primary breast cancer tissue, absent from normal breast tissue. {ECO:0000269|Ref.10}

Background

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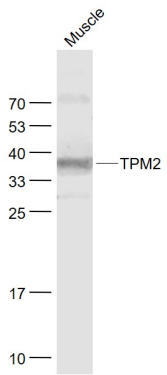
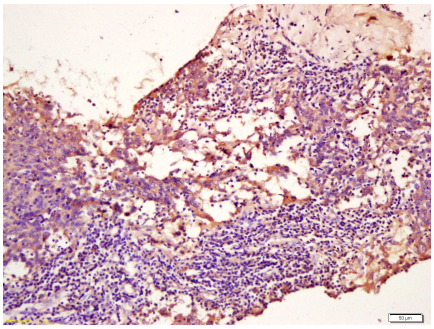
Images



Sample:
Small intestine (Mouse) Lysate at 40 ug
Primary: Anti- TPM2 (AP54853) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 33 kD
Observed band size: 35 kD

Tissue/cell: human breast carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3%



Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-TPM2 Polyclonal Antibody, Unconjugated(AP54853) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining