

TPM1 Antibody

Catalog No: #32189

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Description

Product Name	TPM1 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were purified by affinity purification using immunogen.
Applications	WB IHC IF
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of total TPM1 protein.
Immunogen Type	Recombinant Protein
Immunogen Description	Recombinant protein of human TPM1.
Target Name	TPM1
Other Names	CMH3; TMSA; CMD1Y; C15orf13; HTM-alpha
Accession No.	Swiss-Prot:P09493NCBI Gene ID:7168
SDS-PAGE MW	33KD
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

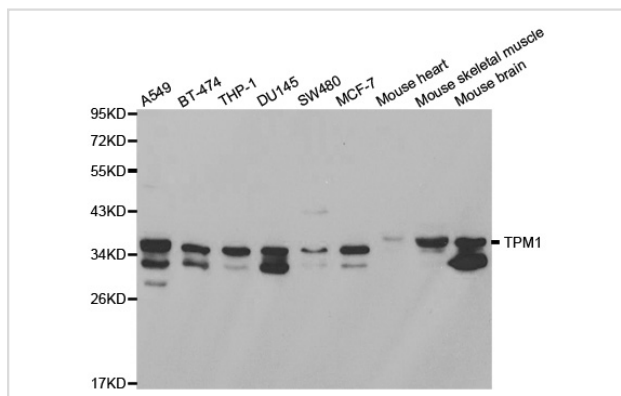
Application Details

Western blotting: 1:500 - 1:2000

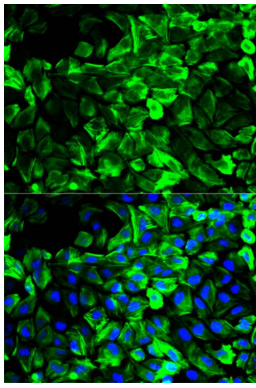
Immunohistochemistry: 1:50 - 1:200

Immunofluorescence: 1:50 - 1:200

Images



Western blot analysis of extracts of various cell lines, using TPM1 antibody.



Immunofluorescence analysis of HeLa cell using TPM1 antibody. Blue: DAPI for nuclear staining.

Background

Tropomyosin-1 (TPM1) belongs to the high molecular weight members of tropomyosin family (1,2). The protein exists in an alpha-helical coiled-coil conformation and binds multiple actin monomers in a tight manner to stabilize and regulate the actin filament (3). Tropomyosins fulfill functions in muscle and non-muscle cells. In muscle cells, tropomyosins associate with the troponin complex and play a central role in the calcium-dependent regulation of striated muscle contraction in vertebrates. In non-muscle cells, tropomyosins are implicated in the formation and stabilization of cytoskeletal actin filaments to ensure normal cellular processes (1,2). Mutations of tropomyosin-1 have been reported as a cause of dilated cardiac myopathies (4). Tropomyosin-1 also functions as a tumor suppressor, and many malignant tumors demonstrate downregulation of tropomyosin-1 expression (5-8). Tropomyosin-1 is phosphorylated at Ser283 through the Erk/DAPK pathway, which promotes stress fiber formation in response to oxidative stress (9-10).

Note: This product is for in vitro research use only and is not intended for use in humans or animals.