

## Product datasheet for **TA326957**

### TPM1 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, WB
Recommended Dilution:	WB 1:500 - 1:2000;IF 1:50- 1:200
Reactivity:	Human, Mouse
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant protein of human TPM1
Formulation:	Store at -20C or -80C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	tropomyosin 1 (alpha)
Database Link:	<a href="#">NP_000357</a> <a href="#">Entrez Gene 22003 Mouse</a> <a href="#">Entrez Gene 7168 Human</a> <a href="#">P09493</a>



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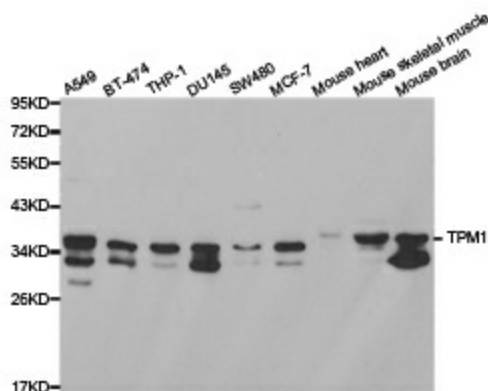
**Background:** Tropomyosin-1 (TPM1) belongs to the high molecular weight members of tropomyosin family . The protein exists in an alpha-helical coiled-coil conformation and binds multiple acting monomers in a tight manner to stabilize and regulate the actin filament . Tropomyosins fulfill functions 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 . Mutations of tropomyosin-1 have been reported as a cause of dilated cardiac myopathies . Tropomyosin-1 also functions as a tumor suppressor, and many malignant tumors demonstrate downregulation of tropomyosin-1 expression . Tropomyosin-1 is phosphorylated at Ser283 through the Erk/DAPK pathway, which promotes stress fiber formation in response to oxidative stress .

**Synonyms:** C15orf13; CMD1Y; CMH3; HEL-S-265; HTM-alpha; LVNC9; TMSA

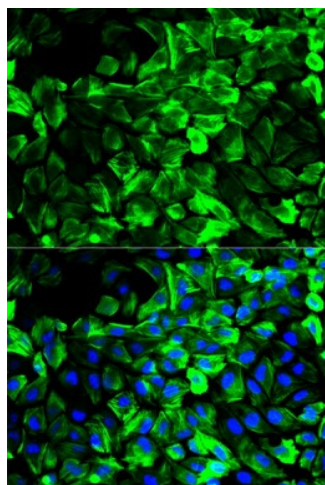
**Protein Families:** Druggable Genome

**Protein Pathways:** Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM)

### Product 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.