

For Research Use Only

# TPM4 Monoclonal antibody

Catalog Number: 67244-1-Ig

Featured Product

4 Publications



## Basic Information

|   |  |  |
|---|--|--|
| <b>Catalog Number:</b><br>67244-1-Ig  | <b>GenBank Accession Number:</b><br>BC037576 | <b>Purification Method:</b><br>Protein G purification  |
| <b>Size:</b><br>150ul, Concentration: 1900 ug/ml by Nanodrop and 1000 ug/ml by Bradford method using BSA as the standard; | <b>GeneID (NCBI):</b><br>7171                | <b>CloneNo.:</b><br>2E12D12  |
| <b>Source:</b><br>Mouse   | <b>ENSEMBL Gene ID:</b><br>ENSG00000167460   | <b>Recommended Dilutions:</b><br>WB: 1:5000-1:50000<br>IHC: 1:1000-1:4000<br>IF/ICC: 1:200-1:800 |
| <b>Isotype:</b><br>IgG1   | <b>UNIPROT ID:</b><br>P67936                 |  |
| <b>Immunogen Catalog Number:</b><br>AG6947  | <b>Full Name:</b><br>tropomyosin 4           |  |
|   | <b>Calculated MW:</b><br>248 aa, 29 kDa      |  |
|   | <b>Observed MW:</b><br>32-35 kDa             |  |

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, ELISA

**Cited Applications:**  
WB, IF

**Species Specificity:**  
human, mouse, rat, pig, rabbit

**Cited Species:**  
human, mouse

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

**WB:** rat skeletal muscle tissue, A549 cells, HeLa cells, HepG2 cells, mouse skeletal muscle tissue, rabbit skeletal muscle tissue, rat heart tissue, mouse heart tissue, rabbit heart tissue, HT-29 cells, human heart tissue, pig heart tissue

**IHC:** mouse heart tissue, rat heart tissue

**IF/ICC:** MCF-7 cells,

## Background Information

TPM4 is a member of tropomyosins (TPMs), a multi-gene family of actin-binding proteins present in all eukaryotic cells. In muscle, TPMs are responsible for mediating contraction via regulation of the actin-myosin interaction. As to non-muscle cells, its proposed role is to stabilize the actin filaments by modulating the interaction with proteins that are responsible for the regulation of actin dynamics. The form of TPM4 in muscle has a higher molecular weight than the form found in non-muscle cells.

## Notable Publications

| Author        | Pubmed ID | Journal           | Application |
|---------------|-----------|-------------------|-------------|
| Hongyu Liu    | 40202170  | CNS Neurosci Ther | WB          |
| Wenzhong Yang | 39622827  | Cell Discov       | IF          |
| Diego Iacono  | 38427613  | PLoS One          | WB          |

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

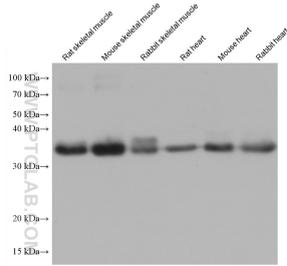
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

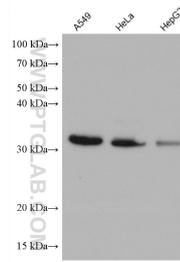
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

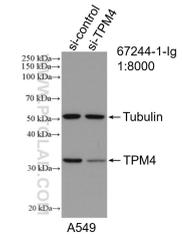
## Selected Validation Data



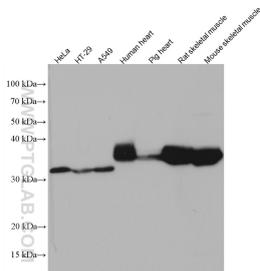
Various lysates were subjected to SDS PAGE followed by western blot with 67244-1-Ig (TPM4 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



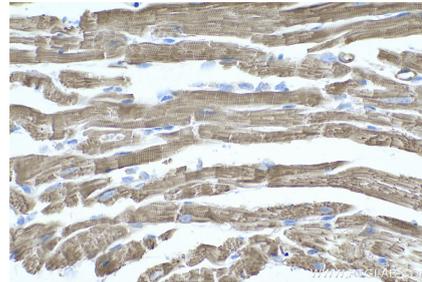
Various lysates were subjected to SDS PAGE followed by western blot with 67244-1-Ig (TPM4 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



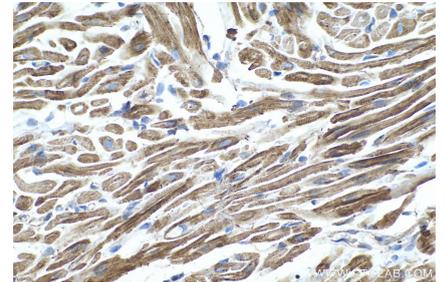
WB result of TPM4 antibody (67244-1-Ig; 1:8000; incubated at room temperature for 1.5 hours) with sh-Control and sh-TPM4 transfected A549 cells.



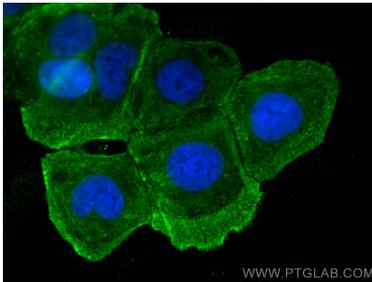
Various lysates were subjected to SDS PAGE followed by western blot with 67244-1-Ig (TPM4 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 67244-1-Ig (TPM4 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded rat heart tissue slide using 67244-1-Ig (TPM4 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using TPM4 antibody (67244-1-Ig, Clone: 2E12D12) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).