

# Human TPM4 / Tropomyosin 4 Protein (His Tag)

Catalog Number: 14030-H07H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

HEL-S-108; TPM4

### Protein Construction:

A DNA sequence encoding the human TPM4 (P67936) (Ala2-Ile248) was expressed with an N-terminal polyhistidine tag.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** His

### Molecular Mass:

The recombinant human TPM4 comprises 267 amino acids and has a predicted molecular mass of 30.8 kDa. The apparent molecular mass of the protein is approximately 35-40 kDa in SDS-PAGE under reducing conditions due to glycosylation.

### Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

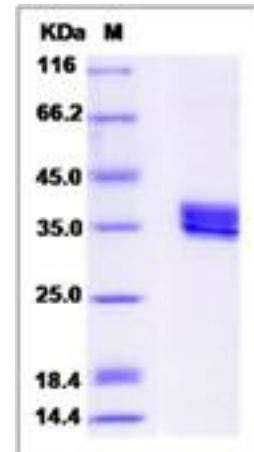
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

TPM4, also known as tropomyosin 4, is a member of the tropomyosin family. Members of this family are actin-binding proteins involved in the contractile system of striated and smooth muscles and the cytoskeleton of non-muscle cells. TPM4 is expressed in cardiac tissue and platelets. It is highly expressed in the platelets of hypertensive patients. TPM4 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 it is implicated in stabilizing cytoskeleton actin filaments.

## References

- 1.Udeshi ND. et al., 2012, Mol Cell Proteomics. 11 (5): 148-59.
- 2.Rostila A. et al., 2012, Lung Cancer. 77 (2): 450-9.
- 3.Vlahovich N. et al., 2008, Cell Motil Cytoskeleton. 65 (1): 73-85.

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