

TPM4 Protein, Human (HEK293, His)

Cat. No.:	HY-P76111
Synonyms:	Tropomyosin alpha-4 chain; TM30p1; Tropomyosin-4; TPM4
Species:	Human
Source:	HEK293
Accession:	P67936 (A2-I248)
Gene ID:	7171
Molecular Weight:	35-40 kDa

PROPERTIES

AA Sequence	<pre> AGLNSLEAVK RKIQALQQQA DEAGEDRAQGL QRELDGERER REKAEGDVAA LNRRIQLVEE ELDRAQERLA TALQKLEEA E KAADESERGM KVIENRAMKD EEKMEIQEMQ LKEAKHIAEE ADRYEEVAR KLVILEGELE RAEERA EVSE LKCGDLEEE L KNVTNNLKSL EAASEKYSEK EDKYE E E I K L LSDKLKEAET RAEFAERTVA KLEKTIDDL E EKLAQA KEEN VGLHQTLDQT LNE LNC I </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in PBS, pH 7.4. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>TPM4 protein exhibits binding specificity to actin filaments in both muscle and non-muscle cells, playing a pivotal role, particularly in conjunction with the troponin complex, in the calcium-dependent regulation of striated muscle contraction in vertebrates. In smooth muscle cells, TPM4 contributes to the regulation of contraction through interaction with caldesmon. In non-muscle cells, TPM4 is implicated in stabilizing actin filaments within the cytoskeleton. Additionally, TPM4 has a calcium-binding capacity, as demonstrated in studies. It forms homodimers and heterodimers, the latter composed of</p>
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an alpha chain (TPM1, TPM3, or TPM4) and a beta chain (TPM2), showcasing its versatility in molecular configurations. The multifaceted interactions of TPM4 underscore its essential roles in both muscle contraction and cytoskeletal dynamics across diverse cellular contexts.

Caution: Product has not been fully validated for medical applications. For research use only.

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