

## TTN Protein, Human (His)

<b>Cat. No.:</b>	HY-P71698
<b>Synonyms:</b>	MPRM; Cardiomyopathy dilated 1G CMD1G; CMH 9; CMH9; CMPD 4; CMPD4; Connectin; HMERF; LGMD2J; MU RMS 40.14; MYLK5; TMD; TTN
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	Q8WZ42 (5398V-5604T)
<b>Gene ID:</b>	7273
<b>Molecular Weight:</b>	Approximately 26.5 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre>V F K C S V I G I P   T P E V K W Y K E Y   M C I E P D N I K Y   V I S E E K G S H T L K I R N V C L S D   S A T Y R C R A V N   C V G E A I C R G F   L T M G D S E I F A V I A K K S K V T L   S S L M E E L V L K   S N Y T D S F F E F   Q V V E G P P R F I K G I S D C Y A P I   G T A A Y F Q C L V   R G S P R P T V Y W   Y K D G K L V Q G R R F T V E E S G T G   F H N L F I T S L V   K S D E G E Y R C V   A T N K S G M A E S F A A L T L T</pre>
<b>Biological Activity</b>	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.
<b>Endotoxin Level</b>	<1 EU/μg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	TTN, a crucial player in the assembly and operation of vertebrate striated muscles, assumes a pivotal role by establishing connections at the individual microfilament level. This contribution becomes instrumental in maintaining the delicate balance of forces within the sarcomere halves. The size and extensibility of the cross-links, orchestrated by TTN, emerge as key determinants shaping the extensibility properties of the sarcomere and, consequently, muscle function. Beyond its myocentric duties, TTN extends its influence to non-muscle cells, where it appears to participate in vital processes such as
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chromosome condensation and segregation during mitosis. In this context, TTN's potential roles include acting as a link between the lamina network and chromatin or nuclear actin, or potentially both, during the interphase of the cell cycle. This multifaceted engagement underscores TTN's significance in both muscle physiology and cellular dynamics.

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

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