

# TTN (Human) Recombinant Protein (Q01)

Catalog # H00007273-Q01 Size 25 ug, 10 ug

## Applications



Specification	
Product Description	Human TTN partial ORF ( AAH58824, 1 a.a 110 a.a.) recombinant protein with GST-tag at N-termi nal.
Sequence	MTTQAPTFTQPLQSVVVLEGSTATFEAHISGFPVPEVSWFRDGQVISTSTLPGVQISFSDGRAKLTI PAVTKANSGRYSLKATNGSGQATSTAELLVKAETAPPNFVQRL
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	37.84
Interspecies Antigen Sequence	Mouse (93)
Preparation Method	in vitro wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCI, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.



# Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — TTN	
Entrez GenelD	7273
GeneBank Accession#	<u>BC058824</u>
Protein Accession#	<u>AAH58824</u>
Gene Name	TTN
Gene Alias	CMD1G, CMH9, CMPD4, CONNECTIN, DKFZp451N061, EOMFC, FLJ26020, FLJ26409, FLJ3 2040, FLJ34413, FLJ39564, FLJ43066, HMERF, LGMD2J, TMD
Gene Description	titin
Omim ID	<u>188840 600334 603689 604145 608807</u>
Gene Ontology	Hyperlink
Gene Summary	This gene encodes a large abundant protein of striated muscle. The product of this gene is divide d into two regions, a N-terminal I-band and a C-terminal A-band. The I-band, which is the elastic p art of the molecule, contains two regions of tandem immunoglobulin domains on either side of a P EVK region that is rich in proline, glutamate, valine and lysine. The A-band, which is thought to act as a protein-ruler, contains a mixture of immunoglobulin and fibronectin repeats, and possesses k inase activity. A N-terminal Z-disc region and a C-terminal M-line region bind to the Z-line and M-line of the sarcomere respectively so that a single titin molecule spans half the length of a sarcomer e. Titin also contains binding sites for muscle associated proteins so it serves as an adhesion termplate for the assembly of contractile machinery in muscle cells. It has also been identified as a st ructural protein for chromosomes. Considerable variability exists in the I-band, the M-line and the Z-disc regions of titin. Variability in the I-band region contributes to the differences in elasticity of d ifferent titin isoforms and, therefore, to the differences in elasticity of different muscle types. Of the many titin variants identified, five for which complete transcript information is available are describ ed. Mutations in this gene are associated with familial hypertrophic cardiomyopathy 9 and autoant ibodies to titin are produced in patients with the autoimmune disease scleroderma. [provided by RefSeq
Other Designations	rhabdomyosarcoma antigen MU-RMS-40.14

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## Pathway

• Hypertrophic cardiomyopathy (HCM)

#### Disease

- Cardiomyopathy
- <u>Cardiovascular Diseases</u>
- Diabetes Mellitus
- <u>Disease</u>
- Edema
- Genetic Predisposition to Disease