Recombinant Human Titin

Cat. No. TTN-705H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human TTNcontains 6 Immunoglobulin-like do mains from the I-band region and can beused as a force and length standard for atomic force spectroscopy.
Species	Human
Source	E.coli
Description	TTN is the largestknown protein. Next to actin and myosin, titin is the third most abundantprotein in the striated muscle sarcomere, providing passive tension to muscleand acting as a template for sarcomere formation. Titin is important in thecontraction of striated muscle tissues. It connects the Z line to the M linein the sarcomere. The protein contributes to force transmission at the Z lineand resting tension in the I band region. It limits the range of motion ofthe sarcomere in tension, thus contributing to the passive stiffness ofmuscle. Variations in the sequence of titin between different types of musclehas been correlated with differences in the mechanical properties of thesemuscles.
Form	Liquid. Supplied in20 mM HEPES-KOH pH 7.0, 50 mM NaCl, 1 mM EDTA and 1 Mm DTT.
Purity	>95% by SDS-PAGE
Endotoxin Level	< 0.1 ng/ɡ ofprotein
Storage	When stored at-80°C, product is stable for 1 year from date of delivery.

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OfficialSymbol	TTN

GENE INFORMATION

Gene Name	TTN titin [Homo sapiens]
Synonyms	TTN; titin; TMD;CMH9; CMD1G; CMPD4; EOMFC; FLJ32040; FLJ26020; FLJ26409; FLJ34413; FLJ39564;FLJ43066; HMERF; MYLK5; LGMD2J; MPRM; DKFZp451N061; connectin; OTTHUMP00000233809;OTTHUMP00000233810; rhabdomyosarcoma antigen MU-RMS-40.14; cardiomyopathy,dilated 1G (autosomal dominant); EC 2.7.11.1
Gene ID	7273
mRNA Refseq	NM_003319
Protein Refseq	NP_003310
MIM	188840
UniProt ID	E9PPD3
Chromosome Location	2q31
Pathway	Dilated cardiomyopathy;Hemostasis; Hypertrophic cardiomyopathy (HCM); Muscle contraction; Plateletactivation; Platelet degranulation; Response to elevated platelet cytosolicCa2+; Striated Muscle Contraction
Function	ATP binding; actinfilament binding; alpha-actinin binding; calcium ion binding; calmodulinbinding; identical protein binding; muscle alpha-actinin binding; nucleicacid

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	binding; nucleotide binding; protein binding; protein self-association;protein serine/threonine kinase activity; protein tyrosine kinase activity;structural constituent of muscle; telethonin binding
Thethree-dimensional structure of a type I module from titin. PDB renderingbased on 1bpv.	

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