

TTN Antibody (monoclonal) (M09)

Mouse monoclonal antibody raised against a partial recombinant TTN.

Catalog # AT4394a

Product Information

Application	WB, IHC, IF, E
Primary Accession	Q8WZ42
Other Accession	BC058824
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	6H5
Calculated MW	3816030

Additional Information

Gene ID	7273
Other Names	Titin, Connectin, Rhabdomyosarcoma antigen MU-RMS-4014, TTN
Target/Specificity	TTN (AAH58824, 1 a.a. ~ 110 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IHC~~1:100~500 IF~~1:50~200 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	TTN Antibody (monoclonal) (M09) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

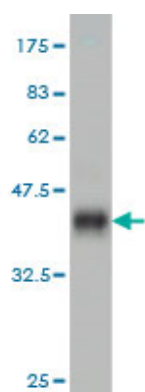
This gene encodes a large abundant protein of striated muscle. The product of this gene is divided into two regions, a N-terminal I-band and a C-terminal A-band. The I-band, which is the elastic part of the molecule, contains two regions of tandem immunoglobulin domains on either side of a PEVK region 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 kinase 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 sarcomere. Titin also contains binding sites for muscle associated proteins so it serves as an adhesion template for the assembly of contractile machinery in muscle cells. It has also been identified as a structural 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 different 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 described. Mutations in this gene are associated with familial hypertrophic cardiomyopathy 9 and autoantibodies to titin are produced in patients with the autoimmune disease scleroderma.

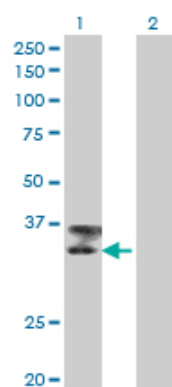
References

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086. The structure of the FnIII Tandem A77-A78 points to a periodically conserved architecture in the myosin-binding region of titin. Bucher RM, et al. J Mol Biol, 2010 Sep 3. PMID 20542041. Cardiac titin: a multifunctional giant. LeWinter MM, et al. Circulation, 2010 May 18. PMID 20479164. Dynamic strength of titin's Z-disk end. Kollr V, et al. J Biomed Biotechnol, 2010. PMID 20414364. Titin-isoform dependence of titin-actin interaction and its regulation by S100A1/Ca²⁺ in skinned myocardium. Fukushima H, et al. J Biomed Biotechnol, 2010. PMID 20414336.

Images

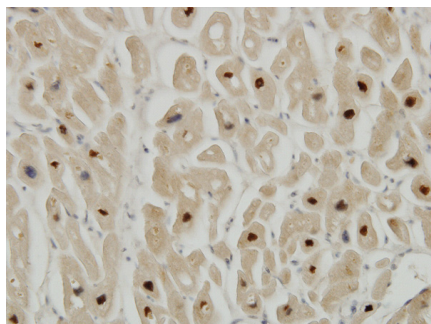


Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (37.84 KDa) .



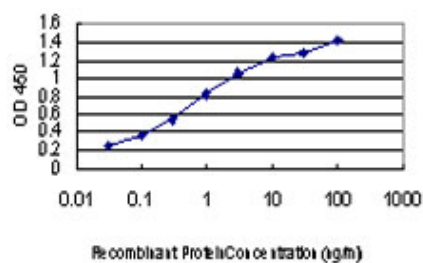
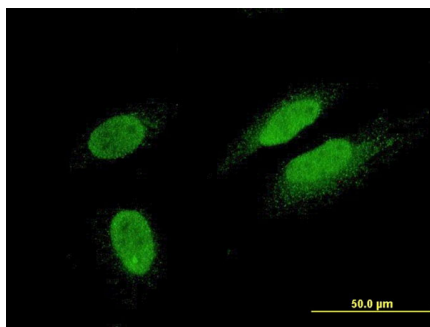
Western Blot analysis of TTN expression in transfected 293T cell line by TTN monoclonal antibody (M09), clone 6H5.

Lane 1: TTN transfected lysate (32.8 KDa).
Lane 2: Non-transfected lysate.



Immunoperoxidase of monoclonal antibody to TTN on formalin-fixed paraffin-embedded human heart. [antibody concentration 3 ug/ml]

Immunofluorescence of monoclonal antibody to TTN on HeLa cell . [antibody concentration 10 ug/ml]



Detection limit for recombinant GST tagged TTN is approximately 0.03ng/ml as a capture antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.