

**TTN Antibody (monoclonal) (M09)**  
**Mouse monoclonal antibody raised against a partial recombinant TTN.**  
**Catalog # AT4394a**

**Specification**

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**TTN Antibody (monoclonal) (M09) - Product Information**

Application	IF, WB, IHC, E
Primary Accession	<a href="#">O8WZ42</a>
Other Accession	<a href="#">BC058824</a>
Reactivity	Human
Host	mouse
Clonality	Monoclonal
Isotype	IgG2a Kappa
Calculated MW	3816030

**TTN Antibody (monoclonal) (M09) - 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

**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.

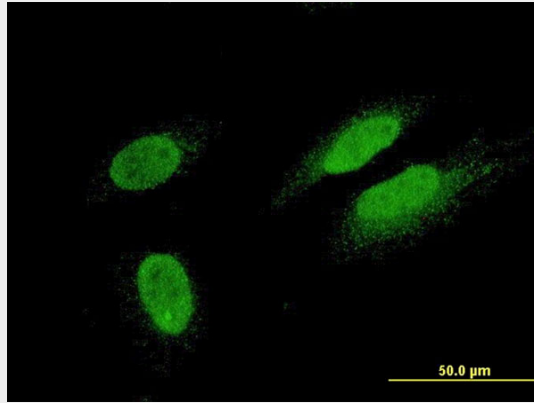
**TTN Antibody (monoclonal) (M09) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

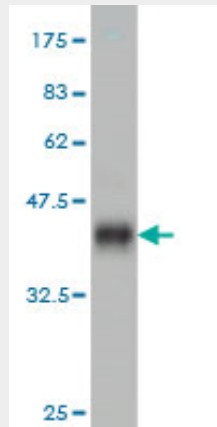
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)

- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

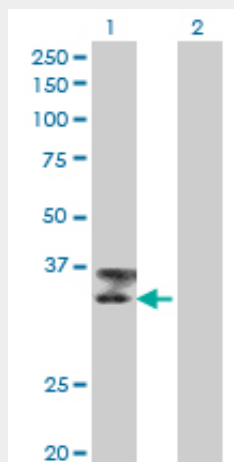
### TTN Antibody (monoclonal) (M09) - Images



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



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

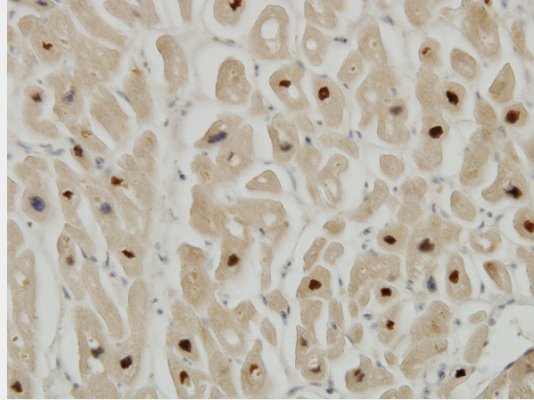


Western Blot analysis of TTN expression in transfected 293T cell line by TTN monoclonal antibody

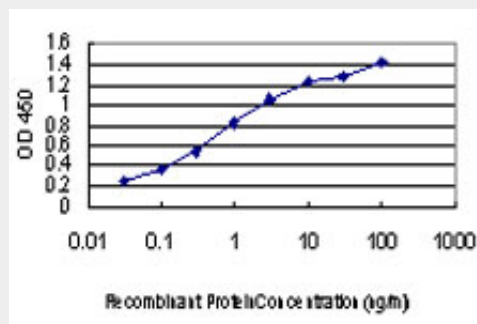
(M09), clone 6H5.

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]



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

### TTN Antibody (monoclonal) (M09) - 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.

### TTN Antibody (monoclonal) (M09) - 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/Ca<sup>2+</sup> in skinned myocardium. Fukushima H, et al. J Biomed Biotechnol, 2010. PMID 20414336.