

Anti-Cardiac Troponin T Antibody [3-G6]

EM1701-39



Product Type:	Mouse monoclonal IgG2b, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IHC-P, IF-Cell, IF-Tissue
Molecular Wt:	Predicted band size: 36 kDa
Clone number:	3-G6

Description: Cardiac muscle troponin T (cTnT) is a protein that in humans is encoded by the TNNT2 gene. Cardiac TnT is the tropomyosin-binding subunit of the troponin complex, which is located on the thin filament of striated muscles and regulates muscle contraction in response to alterations in intracellular calcium ion concentration. The TNNT2 gene is located at 1q32 in the human chromosomal genome, encoding the cardiac muscle isoform of troponin T (cTnT). Human cTnT is an ~36-kDa protein consisting of 297 amino acids including the first methionine with an isoelectric point (pI) of 4.88. It is the tropomyosin-binding and thin filament anchoring subunit of the troponin complex in cardiac muscle cells. TNNT2 gene is expressed in vertebrate cardiac muscles and embryonic skeletal muscles.

Immunogen: Synthetic peptide within human Cardiac Troponin T aa 45-89/298.

Positive control: Human heart tissue lysates, mouse heart tissue, human heart tissue, mouse heart tissue.

Subcellular location: Cytoskeleton, Cytosol.

Database links: SwissProt: P45379 Human | P50752 Mouse

Recommended Dilutions:

WB	1:500-1:1,000
IF-Cell	1:50-1:200
IHC-P	1:50-1:200
IF-Tissue	1:500

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Protein G affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders: 0086-571-88062880

Technical: 0086-571-89986345

Service mail: support@huabio.cn

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Applications: WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

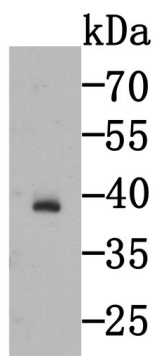


Fig1: Western blot analysis of Cardiac Troponin T on human heart tissue lysate using anti- Cardiac Troponin T antibody at 1/1,000 dilution.

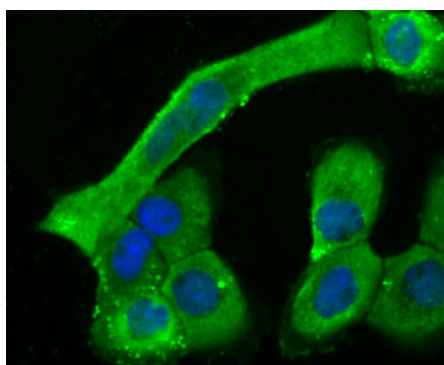


Fig2: ICC staining Cardiac Troponin T (green) in A431 cells. The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

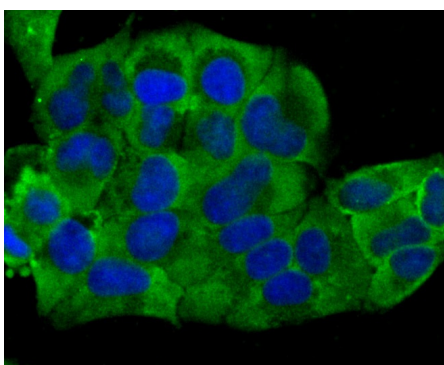


Fig3: ICC staining Cardiac Troponin T (green) in HeLa cells. The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

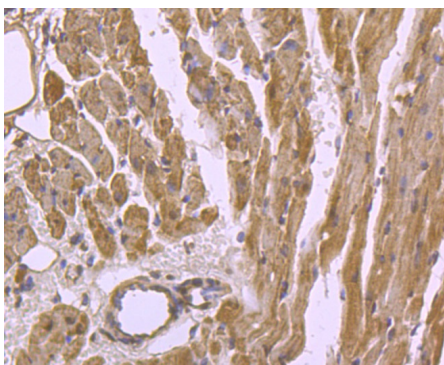


Fig4: Immunohistochemical analysis of paraffin-embedded mouse heart tissue using anti- Cardiac Troponin T antibody. Counter stained with hematoxylin.

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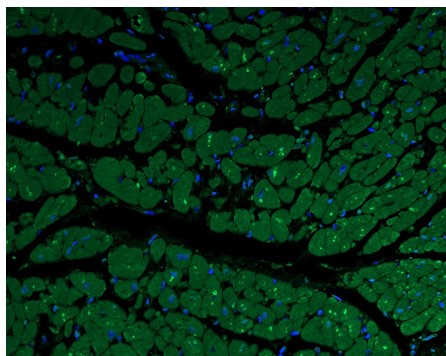


Fig5: Immunofluorescence analysis of paraffin-embedded human heart tissue labeling Cardiac Troponin T with Mouse anti-Cardiac Troponin T antibody (EM1701-39) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (EM1701-39, green) at 1/200 dilution overnight at 4 °C, washed with PBS. Goat Anti-Mouse IgG H&L (iFluor™ 488, HA1125) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Petropoulou E et al. Digenic inheritance of mutations in the cardiac troponin (TNNT2) and cardiac beta myosin heavy chain (MYH7) as the cause of severe dilated cardiomyopathy. *Eur J Med Genet.* 60(9):485-488 (2017).
2. Li YD et al. TNNT2 Gene Polymorphisms are Associated with Susceptibility to Idiopathic Dilated Cardiomyopathy in Kazak and Han Chinese. *Med Sci Monit.* 3;21:3343-7 (2015).

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