

**cTnI Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1042a****Specification**

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**cTnI Antibody - Product Information**

Application	<b>WB, IHC</b>
Primary Accession	<a href="#">P19429</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>

**Description**

cTnI has an apparent molecular weight of 22.5 kDa. cTnI is a candidate marker with acceptable sensitivity and specificity for AMI and other cardiac diseases. Troponin, a molecule that binds to the thin filament (actin) of striated muscle fibers, acts with intracellular calcium to control the interaction of the thin filament with the thick filament (myosin), thus regulating muscle contraction. Troponin I prevents muscle contraction in the absence of calcium, which has two skeletal muscle isoforms with considerable amino acid sequence homology. cTnI contains an additional N-terminal sequence and is highly specific for myocardium.

**Immunogen**

Purified recombinant fragment of cTnI expressed in E. Coli.

**Formulation**

Ascitic fluid containing 0.03% sodium azide.

**cTnI Antibody - Additional Information**

**Gene ID** 7137

**Other Names**

Troponin I, cardiac muscle, Cardiac troponin I, TNNI3, TNNC1

**Dilution**

WB~~1/500 - 1/2000

IHC~~1/200 - 1/1000

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

cTnI Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**cTnI Antibody - Protein Information**

**Name** TNNI3

**Synonyms** TNNC1

**Function**

Troponin I is the inhibitory subunit of troponin, the thin filament regulatory complex which confers calcium-sensitivity to striated muscle actomyosin ATPase activity.

**cTnI Antibody - 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](#)

**cTnI Antibody - Images**

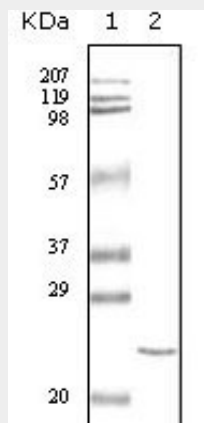


Figure 1: Western blot analysis using cTnI mouse mAb against truncated cTnI recombinant protein.

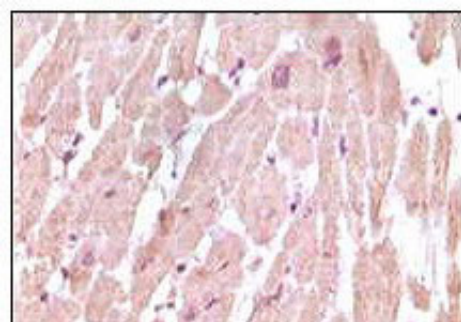


Figure 2: Immunohistochemical analysis of paraffin-embedded human normal cardiac muscle tissue, showing cytoplasmic localization using cTnI mouse mAb with DAB staining.

**cTnI Antibody - References**

1. Cummins B and Cummins P, J Mol Cell Cardiol, 1987, 19(10):999-1010. 2. Cummins B, Auckland ML, and Cummins P, Am Heart J, 1987, 113(6):1333-44. 3. Darnell J, Lodish H, and Baltimore D, Molecular Cell Biology, New York, NY: Scientific American Books, 1986, 827-8. 4. Larue C, Defacque-Lacquemant H, Calzolari C, et al, Mol Immunol, 1992, 29(2):271-8. 5. Adams JE III, Bodor GS, Davila-Roman VG, et al, Circulation, 1993, 88(1):101-6.

**cTnl Antibody - Citations**

- [ID3 may protect mice from anti-GBM glomerulonephritis by regulating the differentiation of Th17 and Treg cells.](#)
- [Foxp3 overexpression in tumor cells predicts poor survival in oral squamous cell carcinoma.](#)