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cTnI Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1042a

Product Information

Application	WB, IHC, E
Primary Accession	P19429
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3A10A12; 5C3A7
Isotype	IgG1
Calculated MW	24008
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.

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 E~~N/A
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.

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.

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.

Images

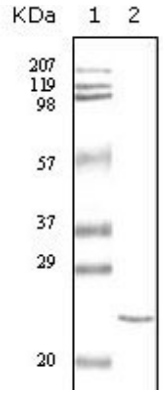

Figure 1: Western blot analysis using cTnI mouse mAb against truncated cTnI recombinant protein.

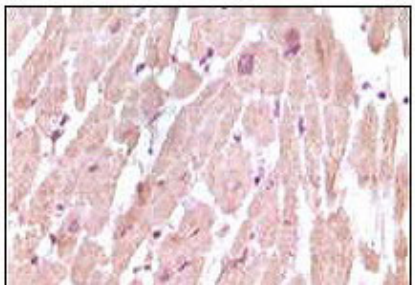

Figure 2: Immunohistochemical analysis of paraffin-embedded human normal cardiac muscle tissue, showing cytoplasmic localization using cTnI mouse mAb with DAB staining.