Cardiac Troponin I Rabbit mAb

Catalog No: #49351

Package Size: #49351-1 50ul #49351-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

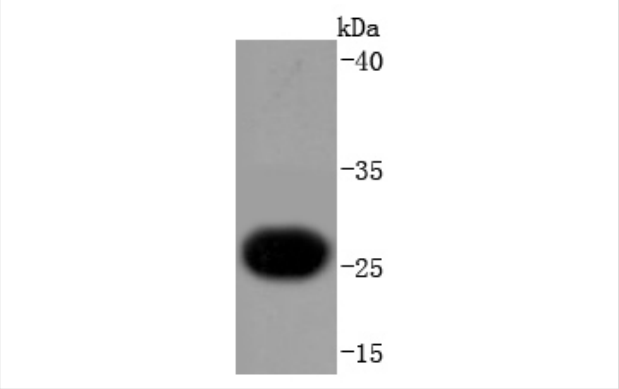
Description

Product Name	Cardiac Troponin I Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	JF0550
Purification	ProA affinity purified
Applications	WB, ICC/IF, IHC, IP
Species Reactivity	Human;Mouse
Immunogen Description	recombinant protein
Conjugates	Unconjugated
Other Names	cardiac muscle antibody Cardiac troponin I antibody cardiomyopathy, dilated 2A (autosomal recessive) antibody Cardiomyopathy, familial hypertrophic, 7, included antibody CMD1FF antibody CMD2A antibody CMH7 antibody cTnI antibody Familial hypertrophic cardiomyopathy 7 antibody MGC116817 antibody RCM1 antibody Tn1 antibody Tni antibody TNN I3 antibody TNNC 1 antibody TNNC1 antibody TNNI3 antibody TNNI3_HUMAN antibody Troponin I antibody Troponin I cardiac antibody Troponin I cardiac muscle antibody Troponin I cardiac muscle isoform antibody Troponin I type 3 cardiac antibody troponin I, cardiac 3 antibody TroponinI antibody Ttroponin I type 3 (cardiac) antibody
Accession No.	Swiss-Prot#:P19429
Calculated MW	24 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

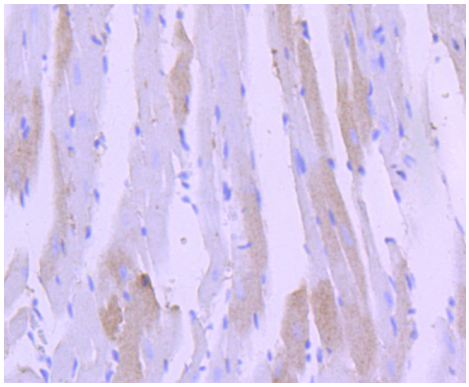
Application Details

WB: 1:1,000-5,000IHC: 1:50-1:200ICC: 1:50-1:200

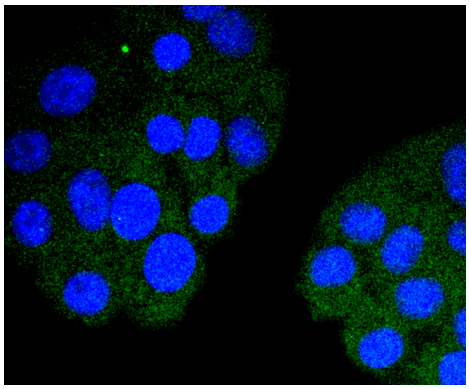
Images



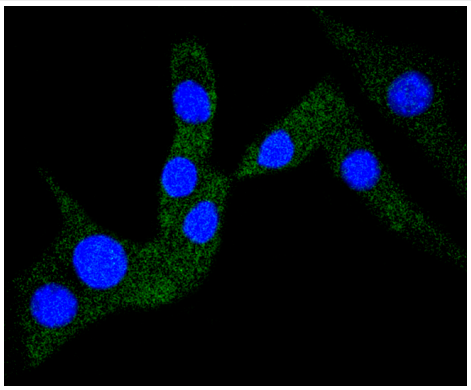
Western blot analysis of Troponin I on human heart lysates using anti-Troponin I antibody at 1/1,000 dilution.



Immunohistochemical analysis of paraffin-embedded human heart tissue using anti-Troponin I antibody. Counter stained with hematoxylin.



ICC staining Troponin I in HepG2 cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining Troponin I in NIH/3T3 cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

Background

Actin is a highly conserved protein that is expressed in all eukaryotic cells. Actin filaments can form both stable and labile structures and are crucial components of microvilli and the contractile apparatus of muscle cells. Myosin is a hexamer composed of two heavy chains (MHC) and four light chains (MLC); it interacts with Actin to generate the force for diverse cellular movements, including cytokinesis, phagocytosis and muscle contraction. Troponin facilitates the interaction between Actin and Myosin by binding to calcium. Troponin comprises at least two subunits, which are divergent in cardiac muscle, fast skeletal muscle and slow skeletal muscle. Structures of skeletal muscle troponin are composed of Troponin C (the sensor), Troponin I (the regulator) and Troponin T (the link to the muscle thin filament). Troponin C is dumbbell-shaped and has a hydrophobic pocket that increases the contractile force of muscle fibers. Troponin C has two isoforms: fast and slow. Fast Troponin C has two calcium binding sites while slow/cardiac Troponin C has a single calcium binding site.

References

1. Wang Y et al. The transplantation of Akt-overexpressing amniotic fluid-derived mesenchymal stem cells protects the heart against ischemia-reperfusion injury in rabbits. Mol Med Rep 14:234-42 (2016). 2. Uzun AU et al. Ca(2+)-Currents in Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes Effects of Two Different Culture Conditions. Front Pharmacol 7:300 (2016).

Note: This product is for in vitro research use only and is not intended for use in humans or animals.