BACKGROUND
Actin and Myosin are highly conserved proteins that are expressed in all eukaryotic cells. Actin filaments are crucial components of the contractile apparatus of muscle cells. Myosins interact with Actin to generate the force for diverse cellular movements. Troponin facilitates the interactions between Actin and Myosin by binding to Ca\textsuperscript{2+}. Troponin contains three subunits, Troponin C, I and T. Troponin C, the Ca\textsuperscript{2+} binding subunit, is expressed in cardiac and slow skeletal muscle, and is involved in regulating the excitation-contraction coupling in cardiac muscle. Troponin I, the inhibitory subunit of Troponin, exists as fast and slow skeletal muscle isoforms, which are differentially expressed in individual muscle fibers, and cardiac as Troponin I, which is exclusively expressed in cardiac muscle. Troponin T, the tropomyosin-binding subunit of Troponin, plays a role in conferring calcium-sensitivity to acto-myosin ATPase activity, and it exists as fast and slow skeletal and cardiac isoforms.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: TNNI3 (human) mapping to 19q13.42.

SOURCE
p-Troponin I-C (1G11) is a mouse monoclonal antibody raised against a phosphorylated form of cardiac Troponin I of human origin.

PRODUCT
Each vial contains 100 µg IgG\textsubscript{2b} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE
Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS
p-Troponin I-C (1G11) is recommended for detection of a phosphorylated form of cardiac Troponin I of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)]. Suitable for use as control antibody for Troponin I-C siRNA (h): sc-36738, Troponin I-C shRNA Plasmid (h): sc-36738-SH and Troponin I-C shRNA (h) Lentiviral Particles: sc-36738-V.

Molecular Weight of p-Troponin I-C: 30 kDa.

DATA

SELECT PRODUCT CITATIONS

RESEARCH USE
For research use only, not for use in diagnostic procedures.

PROTOCOLS
See our web site at www.scbt.com for detailed protocols and support products.