



Troponin I-SS (14-64): sc-4981 WB

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^{2+} . It contains three subunits, Troponin C, I and T. Troponin C, the Ca^{2+} binding subunit, is expressed in cardiac and slow skeletal muscle. It 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 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 actomyosin ATPase activity. It exists as fast and slow skeletal and cardiac isoforms.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TNNI2 (human) mapping to 11p15.5; Tnni2 (mouse) mapping to 7 F5.

SOURCE

Troponin I-SS (14-64) is expressed in *E. coli* as a 33 kDa tagged fusion protein corresponding to amino acids 14-64 of Troponin I-SS of human origin.

PRODUCT

Troponin I-SS (14-64) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 10 μg in 0.1 ml SDS-PAGE loading buffer.

APPLICATIONS

Troponin I-SS (14-64) is suitable as a Western blotting control for sc-20645 and sc-33727.

STORAGE

Store at -20°C . Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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