Troponin T-C (CT3): sc-20025

**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 of two heavy chains (MHC) and four light chains (MLC) that 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 is made up of 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 calcium binding sites, while slow/cardiac Troponin C has a single calcium binding site.

**CHROMOSOMAL LOCATION**

Genetic locus: TNNT2 (mouse) mapping to 1q32.1; Tnnt2 (mouse) mapping to 1 E4.

**SOURCE**

Troponin T-C (CT3) is a mouse monoclonal antibody raised against bovine cardiac muscle Troponin T.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Troponin T-C (CT3) is available conjugated to agarose (sc-20025 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-20025 HRP), 200 µg/ml, for WB, HRP and ELISA; to either phycoerythrin (sc-20025 P4), fluorescein (sc-20025 FITC), Alexa Fluor® 488 (sc-20025 AF488), Alexa Fluor® 546 (sc-20025 AF546), Alexa Fluor® 594 (sc-20025 AF594) or Alexa Fluor® 647 (sc-20025 AF647), 200 µg/ml, for WB (RGB), IF, IHQ (IF) and FCM; and to either Alexa Fluor® 680 (sc-20025 AF680) or Alexa Fluor® 790 (sc-20025 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

Troponin T-C (CT3) is recommended for detection of cardiac muscle Troponin T of broad species origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).


Molecular Weight of Troponin T-C: 39 kDa.

**STORAGE**

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

**DATA**

![Data Image](Image)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

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