Troponin T, Cardiac Isoform Ab-1 (Clone 13-11)

Mouse Monoclonal Antibody

Cat. #MS-295-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)
Cat. #MS-295-PIABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)
Cat. #MS-295-R7 (7.0ml) (Ready-to-Use for Immunohistochemical Staining)
Cat. #MS-295-PCS (5 Slides) (Positive Control for Histology)

Description: Troponin T is a thin filament regulatory protein of striated muscle that binds to troponin C and I and to tropomyosin and is required for calcium-dependent ATPase activity of myofibrillar proteins. It is important in proper muscle function and myofibril formation. In the human heart, four cTnT isoforms are expressed in a developmentally regulated manner. This expression in the human heart is affected by heart failure.

Comments: Ab-1 specifically recognizes the cardiac isoform of Troponin T (cTnT).

Epitope: FMPNLVPPKI (5’ region of the cardiac gene exon 10)

Species Reactivity: Human, Pig, Dog, Rabbit, Rat, Mouse, Guinea pig, Chicken, Sparrow, Goldfish. Does not react with frog.

Clone Designation: 13-11

Ig Isotype: IgG1

Immunogen: Purified rabbit cardiac troponin T isoform (TnT4R)

Applications and Suggested Dilutions:
- Electron Microscopy
- Immunofluorescence
- Immunohistology (Formalin/paraffin) (Ab 1-2µg/ml for 30 min at RT)

* [Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, (NEOMARKERS’ Cat. #AP-9003), for 10-20 min followed by cooling at RT for 20 min.]

The optimal dilution for a specific application should be determined by the investigator.

Positive Control: Cardiac muscle

Cellular Localization: Mostly over the I bands in myofibrils

Supplied As: 200µg/ml antibody purified from the ascites fluid by Protein G chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml, or Prediluted antibody which is ready-to-use for staining of formalin-fixed, paraffin-embedded tissues.

Storage and Stability:
Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

Key References:

Limitations and Warranty:
Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. NeoMarkers is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

Material Safety Data:
This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

For Research Use Only

Additional Key References:
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3. Anderson PA; Greig A; Mark TM; Malouf NN; Oakeley AE; Ungerleider RM; Allen PD; Kay BK. Molecular basis of human cardiac troponin T isoforms expressed in the developing, adult, and failing heart. Circulation Res, 1995, 76(4):681-6.


5. Greig A; Hirschberg Y; Anderson PA; Hainsworth C; Malouf NN; Oakeley AE; Kay BK. Molecular basis of cardiac troponin T isoform heterogeneity in rabbit heart. Circulation Research, 1994 Jan, 74(1):41-7.


