

Product Information

Anti-Troponin T antibody, Mouse monoclonal
clone JLT-12, purified from hybridoma cell culture

Product Number **SAB4200717**

Product Description

Anti-Troponin T antibody, Mouse monoclonal, (mouse IgG1 isotype) is derived from the JLT-12 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from a BALB/c mouse immunized with purified Troponin T from rabbit skeletal muscle.¹⁻² The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Monoclonal Anti-Troponin T antibody specifically recognizes human,⁶ rabbit,²⁻⁴ rat, mouse,⁵ goat,⁸ bovine⁹ and salamandra⁷ Troponin T. The antibody shows reactivity with both fast skeletal (TNNT3) and cardiac (TNNT2) Troponin T and recognized all five fast skeletal as well as five cardiac muscle isoforms.³⁻⁷ The antibody does not show cross react with tropomyosin. Monoclonal Anti-Troponin T is recommended to use in various immunochemical assays, including Immunoblotting (~38 kDa), Immunofluorescence and Immunohistochemistry.¹⁻⁷

Troponin T also known as TNNT is the tropomyosin binding subunit of the troponin complex, it is a central player in calcium regulation of actin thin filament function and is essential for the contraction of striated muscles.¹⁰ Three genes have evolved to encode the cardiac (TNNT2), slow (TNNT1) and fast (TNNT3) skeletal muscle Troponin T proteins, which are specifically expressed in cardiac, slow and fast skeletal muscles, respectively.¹¹ Levels of cardiac Troponin T serve as a sensitive biomarker of myocardial injury. Troponin T has also been suggested as a potential marker in diagnosis of skeletal myopathies including ALS.¹²

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 0.5–1 µg/mL is recommended using rat skeletal muscle extract.

Immunohistochemistry: a working concentration of 5–10 µg/ml is recommended using heat-retrieved formalin-fixed, paraffin-embedded human skeletal muscle sections.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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