

RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Rabbit Anti-Human Troponin I Antibody

Catalog No: 130-10066	Isotype: Rabbit IgG	Species: Human	Accession No: Q13489
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Description

Troponin I, one of 3 subunits that form the troponin complex of the thin filaments of striated muscle, is the inhibitory component of troponin. Troponin, in conjunction with tropomyosin, functions as a molecular switch, regulating muscle contraction in response to changes in the intracellular Ca²⁺ concentration. Troponin consists of three subunits: the Ca²⁺-binding subunit troponin C (TnC), the tropomyosin-binding subunit troponin T (TnT), and the inhibitory subunit troponin I (TnI). Unlike other contractile proteins, the cardiac isoform of troponin I (TnIc) is expressed only in cardiac muscle and therefore offers a model for cardiac-specific expression. It is also subject to developmental regulation with increased expression occurring at the time of birth. TnIc, a sensitive and specific marker of myocardial cell injury, is useful in diagnosing and assessing prognosis in acute coronary syndromes. Studies report that TnIc is elevated in severe heart failure and may predict adverse outcomes.

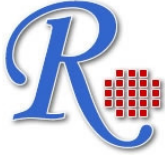
Applications

Summary of antibody applications and working conditions

Options / Functions	YES	NO	Not determined	Recommended work dilution
ELISA	*			1:160000
Western Blotting	*			1:1000
Enzyme Immunoassay(EIA)			*	
Immunohistology - paraffin			*	
Immunohistology - resin			*	
Immunoprecipitation			*	
Flow Cytometry			*	

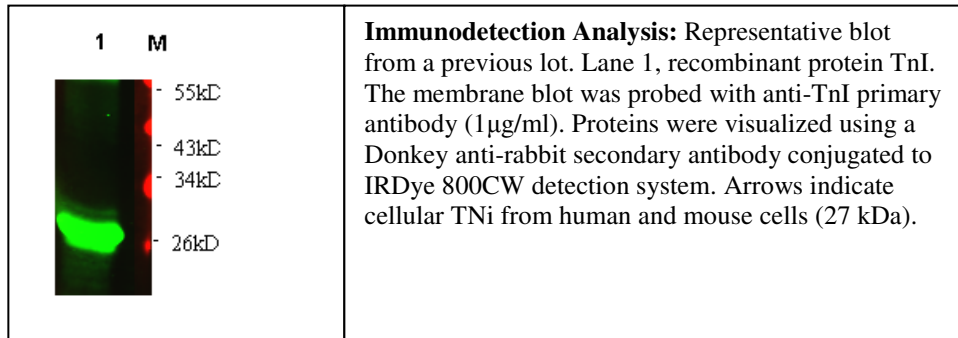
Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Preparation

The Immunogen was recombinant protein derived from human TnI. This antibody was produced from a rabbit immunized with the immunogen. The IgG fraction was purified from rabbit serum by ammonium sulphate precipitation followed by Protein A/G affinity chromatography.

Specificity

This antibody binds to Human TnI. Cross reactivity with mouse and rat TnI was not tested.

Reconstitution

Product is supplied as a powder obtained from lyophilization of purified antibody in PBS without preservatives. Reconstitute the antibody with sterile 1x PBS to a final concentration of 1 mg/ml.

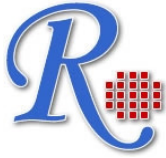
Storage

Store at 4°C if intended for use within one month, otherwise, store at -20°C to -80°C. The lyophilized antibody is stable for at least 18 months after the date of receipt when stored at -20°C to -80°C. After reconstitution, it can be aliquoted and stored frozen at -20°C to -80°C in a manual defrost freezer for at least 6 months without detectable loss of activity. Upon reconstitution, the antibody can also be stored for 1 month at 4°C. **Please avoid freeze-thaw cycles, as this will lower the activity of the antibody.**

Related products

1. Mouse Anti-Troponin I-Cardiac (catalog #: MD-14-0977)

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Reference

Schulz O, et al.. (2010) High-sensitive cardiac troponin I (hs-cTnI) values in patients with stable cardiovascular disease: an initial foray. Clin Chim Acta. 411(11-12):812-7.

Kimura A,et al.. (1997) Mutations in the cardiac troponin I gene associated with hypertrophic cardiomyopathy. Nat Genet. 16(4):379-82.

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