

Datasheet for 100-401-X31

Troponin I (cardiac) Antibody

Overview

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| Description: | Anti-Troponin I (cardiac) (RABBIT) Polyclonal Antibody - 100-401-X31 |
| Item No.: | 100-401-X31 |
| Size: | 100 µL |
| Applications: | WB |
| Reactivity: | Mouse, Rat |
| Host Species: | Rabbit |

Product Details

Background: Troponin I (cTnI) is 1 of 3 subunits, along with troponin C (TnC) and troponin T (TnT) of troponin complex found in cardiac muscle. cTnI binds to actin in thin myofilaments to hold the troponin-tropomyosin complex in place. Phosphorylation of cardiac isoform of TnI at serines 22,23 in the unique amino-terminal end molecule decreases the calcium sensitivity of the sarcomere, promotes calcium dissociation from troponin C and by extension enhances rates of cross-bridge cycling and diastolic relaxation. In addition, studies using reconstituted fibers and mutational analysis have shown that PKC phosphorylation of TnI (largely at Ser43) inhibits the actin-cross bridge reaction and reduces the Ca⁺⁺ dependent actomyosin ATPase rate as well as the calcium sensitivity of force generation. Phosphorylation at Thr144 (mediated by several PKC isoforms) reduces maximal tension development and cross-bridge cycling rates. Importantly, changes in the phosphorylation at each of these sites have been shown to be stage-specific with regard to cardiac disease progression. Troponin I Antibody is ideal for researchers interested in cancer research.

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| Synonyms: | Troponin I cardiac muscle, Cardiac troponin I |
| Host Species: | Rabbit |
| Clonality: | Polyclonal |
| Format: | Antiserum |

Target Details

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| Gene Name: | Tnni3 |
| Reactivity: | Mouse, Rat |

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| Immunogen Type: | Recombinant Protein |
| Immunogen: | Anti-Troponin (cardiac) Antibody was produced in rabbits by repeated immunizations with a fusion protein of complete mouse cardiac troponin 1. |
| Purity/Specificity: | Anti-Troponin (cardiac) Antibody is a prepared sterile filter neat serum. |
| Relevant Links: | <ul style="list-style-type: none">• UniProtKB - P48787• GenelD - 21954• NCBI - NP_033432.1 |

Application Details

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| Tested Applications: | WB |
| Application Note: | Anti-Troponin (cardiac) Antibody has been tested in Western Blots and is specific for the ~25 kDa cardiac troponin I protein. Specific conditions for reactivity should be optimized by the end user. |
| Assay Dilutions: | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below. |
| ELISA: | 1:20,000 |
| WB: | 1:2000 (or higher in cardiac muscle) |

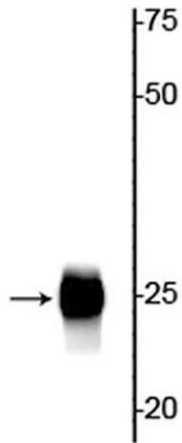
Formulation

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| Physical State: | Liquid (sterile filtered) |
| Buffer: | None |
| Preservative: | None |
| Stabilizer: | None |

Shipping & Handling

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| Shipping Condition: | Wet Ice |
| Storage Condition: | Store vial at -20° C prior to opening in undiluted aliquots. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. |
| Expiration: | Expiration date is one (1) year from date of receipt. |

Images



Western Blot

Western blot of anti-troponin I antibody.
Mouse heart lysate [20 μ g] showing specific immunolabeling
of the ~25 kDa cardiac troponin I protein.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.