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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

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| **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. |
| **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:** | • UniProtKB - P48787<br>• GeneID - 21954<br>• 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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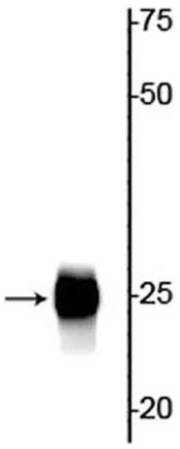
| **Shipping Condition:** | Wet Ice |
| **Storage Condition:** | Store vial at -20° C prior to opening in undiluted aliquots. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. |
| **Expiration:** | Expiration date is one (1) year from date of receipt. |

## Images




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

## Disclaimer