

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Troponin I in direct ELISAs.
<b>Source</b>	Recombinant Monoclonal Rabbit IgG Clone # 1188B
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	Peptide 3 Accession # P19429
<b>Formulation</b>	Supplied as a solution in PBS containing BSA, Glycerol and Sodium Azide. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

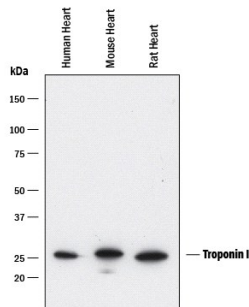
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1:1000 dilution	See Below
<b>Immunocytochemistry</b>	1:100 dilution	See Below
<b>Simple Western</b>	1:100 dilution	See Below

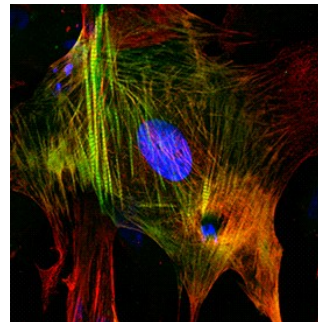
## DATA

### Western Blot



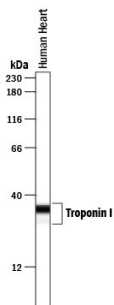
**Detection of Human, Mouse, and Rat Troponin I by Western Blot.** Western blot shows lysates of human heart tissue, mouse heart tissue, and rat heart tissue. PVDF membrane was probed with 1:1000 dilution of Rabbit Anti-Human Troponin I Monoclonal Antibody (Catalog # MAB8594) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for Troponin I at approximately 25 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

### Immunocytochemistry



**Troponin I in Human Cardiomyocytes.** Troponin I was detected in immersion fixed human embryonic stem cells, differentiated into cardiomyocytes using the StemXVivo Cardiomyocyte Differentiation Kit (Catalog # SC032), using Rabbit Anti-Human Troponin I Monoclonal Antibody (Catalog # MAB8594) at 1:100 dilution for 3 hours at room temperature. Cells were stained using the NorthernLights™ 493-conjugated Anti-Rabbit IgG Secondary Antibody (green; Catalog # NL006). Cardiac Troponin T was also detected in cardiomyocytes using Mouse Anti-Human Cardiac Troponin T Monoclonal Antibody (Catalog # MAB1874). Cells were co-stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining of Troponin I was localized to cardiac muscle fibrils. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

### Simple Western



**Detection of Human Troponin I by Simple Western™.** Simple Western lane view shows lysates of human heart tissue, loaded at 0.1 mg/mL. A specific band was detected for Troponin I at approximately 25-35 kDa (as indicated) using 1 µg/mL of Rabbit Anti-Human Troponin I Monoclonal Antibody (Catalog # MAB8594). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C, as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after opening.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after opening.</li> </ul>

## BACKGROUND

Troponin I, also known as TNI, is a 24 kDa component of a protein complex on striated muscle thin filaments. Troponin I inhibits the calcium-dependent muscle contraction mediated by Troponins C and T. The expression of cardiac Troponin I (TNNI3) is restricted to cardiac muscle, while TNNI1 and TNNI2 (encoded by distinct genes) are expressed in skeletal muscle. Mutations of cardiac Troponin I are associated with hereditary cardiomyopathy. Human cardiac Troponin I shares 93% amino acid sequence identity with mouse and rat cardiac Troponin I.

## PRODUCT SPECIFIC NOTICES

\* Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to SDS for additional information and handling instructions.