abcam

ab52862

Anti-Cardiac Troponin I antibody [EP1106Y]

Anti-Cardiac Troponin I antibody [EP1106Y] (ab52862) is a rabbit monoclonal antibody detecting Cardiac Troponin I in **Western Blot, Flow Cytometry (Intra), IP, IHC-P**. Suitable for **Human**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 10 publications
- Trusted since 2007

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP1106Y
Purification technique	Affinity purification Protein A
Concentration	0.356 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/50
Notes	-

WB

Tested

Species	Human
Dilution info	1/100000 - 1/1000000
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/30
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/250 - 1/500
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target data

See full target information TNNI3

Function	Troponin I is the inhibitory subunit of troponin, the thin filament regulatory complex which confers calcium-sensitivity to striated muscle actomyosin ATPase activity.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Stable for 12 months at -20°C

Notes

What is this antibody validated in?
Anti-Cardiac Troponin I antibody [EP1106Y] (ab52862) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P) in Human samples.

What is the molecular weight of Cardiac Troponin I?
Anti-Cardiac Troponin I [EP1106Y] (ab52862) specifically detects a band for Cardiac Troponin I (UniProt: P19429) at a molecular weight of 28kDa.

Trusted by the scientific community
Anti-Cardiac Troponin I [EP1106Y] (ab52862) was first used in a scientific publication in 2007 and has been cited over 10 times in peer-reviewed journals.

Other related products
We have a range of other formats of antibody clone [EP1106Y] also available for your convenience: ab52862, Carrier free - ab182616, PE - ab305814, APC - ab305815, HRP - ab305816, Alexa Fluor® 594 - ab310678, Alexa Fluor® 555 - ab312208

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our

selection of trial-size antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

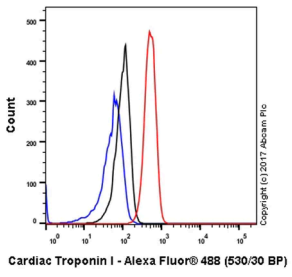
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

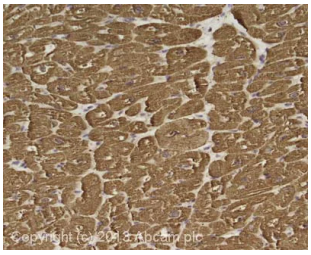
8 product images



Flow Cytometry (Intracellular) - Anti-Cardiac Troponin I antibody [EP1106Y] (ab52862)

Cardiac Troponin I Flow Cytometry (Intracellular) staining using rabbit Anti-Cardiac Troponin I antibody

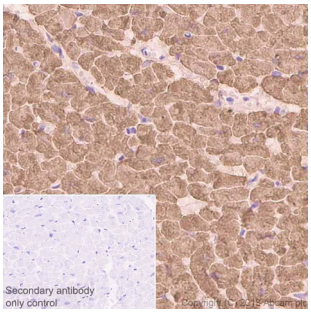
Intracellular Flow Cytometry analysis of A-673 (Human muscle Ewing's Sarcoma) cells labeling Cardiac Troponin I (red) with ab52862 at a 1/30 dilution. Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A goat anti-rabbit IgG (Alexa Fluorr® 488) (ab150077) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (Black) (ab172730). Blue (unlabeled control) - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiac Troponin I antibody [EP1106Y] (ab52862)

Cardiac Troponin I Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cardiac Troponin I antibody

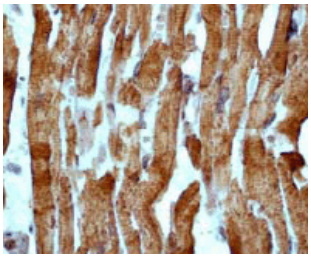
IHC image of Cardiac Troponin I staining in human heart formalin fixed paraffin embedded tissue section, performed on a Leica Bond system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab52862, 1/200 dilution, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiac Troponin I antibody [EP1106Y] (ab52862)

Cardiac Troponin I Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cardiac Troponin I antibody

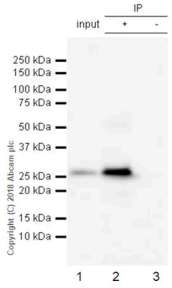
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human cardiac muscle tissue sections labeling Cardiac Troponin I with Purified ab52862 at 1:300 dilution (1.19 µg/ml). Heat mediated antigen retrieval was performed Perform heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody. Negative control:PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiac Troponin I antibody [EP1106Y] (ab52862)

Cardiac Troponin I Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cardiac Troponin I antibody

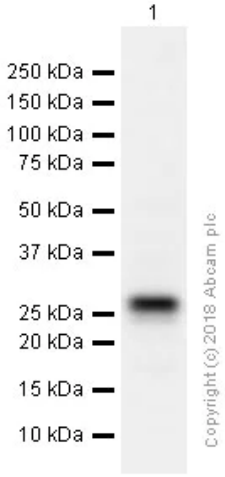
ab52862 at 1/250 dilution staining cardiac Troponin I in human cardiac muscle by Immunohistochemistry, Paraffin embedded tissue.



Immunoprecipitation - Anti-Cardiac Troponin I antibody [EP1106Y] (ab52862)

ab52862 (purified) at 1:30 dilution (2µg) immunoprecipitating Cardiac Troponin I in Human fetal heart lysate.
Lane 1 (input): Human fetal heart lysate 10µg
Lane 2 (+): ab52862 & Human fetal heart lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab52862 in Human fetal heart lysate
For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.
All lanes:
Immunoprecipitation - Anti-Cardiac Troponin I antibody [EP1106Y] (ab52862)

Predicted band size: 24 kDa



Western blot - Anti-Cardiac Troponin I antibody [EP1106Y] (ab52862)

Cardiac Troponin I Western blot staining of Human fetal heart lysates using rabbit Anti-Cardiac Troponin I antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

All lanes:
Western blot - Anti-Cardiac Troponin I antibody [EP1106Y] (ab52862) at 1/500000 dilution

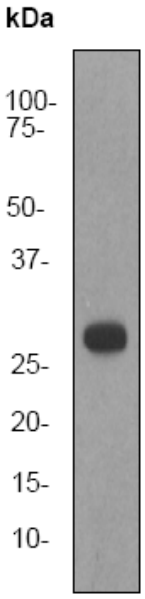
All lanes:
Human fetal heart lysates at 15 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 24 kDa

Observed band size: 28 kDa



Western blot - Anti-Cardiac Troponin I antibody [EP1106Y] (ab52862)

All lanes:
Western blot - Anti-Cardiac Troponin I antibody [EP1106Y] (ab52862) at 1/1000000 dilution

All lanes:
fetal heart cell lysate at 10 µg

Secondary

All lanes:
Goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 24 kDa

Observed band size: 28 kDa

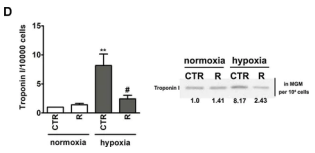


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Western blot - Anti-Cardiac Troponin I antibody [EP1106Y] (ab52862)

Cardiac Troponin I Western blot staining using rabbit Anti-Cardiac Troponin I antibody

Cardiac Troponin I western blot using anti-Cardiac Troponin I antibody [EP1106Y] ab52862. Publication image and figure legend from Lewinska, A., Adamczyk-Grochala, J., et al., 2020, Aging (Albany NY), PubMed 32584786.

ab52862 was used in this publication in western blot. This may not be the same as the application(s) guaranteed by Abcam. For a full list of applications guaranteed by Abcam for ab52862 please see the product overview.

Remifentanil preconditioning-mediated effects on metabolic activity (A), cell number (B), the levels of necrotic cells (C), troponin I release, a marker of myocardial damage (D) and the levels of apoptotic cells (E, F) during normoxic and hypoxic conditions in human cardiac myocytes (HCM). (A) The metabolic activity was assayed using MTT test. Metabolic activity at control normoxic conditions (CTR) is considered as 100%. A solvent action (0.9% NaCl) is also shown. Based on MTT results, the concentration of 8 ng/ml remifentanil was selected for further analysis. Cell number (B) and necrotic cell death (C) were evaluated using TC10™ automated cell counter. (C) Necrosis was analyzed using trypan blue exclusion assay. (D) Western blot analysis of the levels of cardiac troponin I. Cardiac troponin I levels in supernatants (Myocyte Growth Medium, MGM) were calculated per 10000 cells. Two biomarkers of apoptotic cell death were considered, namely phosphatidylserine externalization (E) and the activity of caspase 3/7 (F) using Muse® Cell Analyzer and Muse® Annexin V and Dead Cell Assay Kit and Muse® Caspase-3/7 Assay Kit, respectively. Representative dot-plots are also shown. Bars indicate SD, n = 3, ***$p < 0.001$, **$p < 0.01$, *$p < 0.05$ compared to normoxic control (CTR), ###$p < 0.001$, #$p < 0.05$ compared to hypoxic control (CTR) (ANOVA and Dunnett's a posteriori test). CTR, control; R, remifentanil preconditioning.

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