abcam

ab209813

Anti-Cardiac Troponin T antibody [EPR20266]

Anti-Cardiac Troponin T antibody [EPR20266] (ab209813) is a rabbit monoclonal antibody detecting Cardiac Troponin T in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 10 publications

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	EPR20266
Purification technique	Affinity purification Protein A
Concentration	0.696 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Mouse
Dilution info	1/5000
Notes	-

Species	Rat
Dilution info	1/5000
Notes	-

Species	Human
Dilution info	1/5000
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Species	Rat
Dilution info	1/500
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	1/4000

Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/4000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/4000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

ICC/IF

Tested

Species	Human
Dilution info	0.5-5 µg/mL
Notes	-

Not recommended

Species	Rat, Mouse
Dilution info	-
Notes	-

Target data

See full target information TNNT2

Function	Troponin T is the tropomyosin-binding 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 duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-Cardiac Troponin T antibody [EPR20266] (ab209813) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse, Rat samples.

What is the molecular weight of Cardiac Troponin T?
Anti-Cardiac Troponin T [EPR20266] (ab209813) specifically detects a band for Cardiac Troponin T (UniProt: P45379) at a molecular weight of 36kDa.

Trusted by the scientific community
Anti-Cardiac Troponin T [EPR20266] (ab209813) was first used in a scientific publication in 2016 and has been cited over 10 times in peer-reviewed journals.

Other related products
We have a range of other formats of antibody clone [EPR20266] also available for your convenience: ab209813, Carrier free - ab223536, Alexa Fluor® 488 - ab314676, Alexa Fluor® 647 - ab314677, APC - ab317475, PE - ab322129

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.

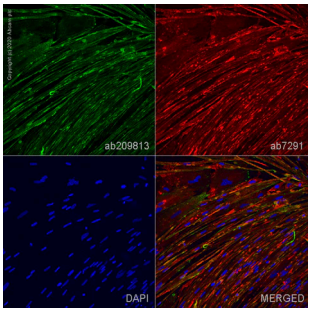
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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11 product images



Immunocytochemistry/ Immunofluorescence - Anti-Cardiac Troponin T antibody [EPR20266] (ab209813)

Cardiac Troponin T Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cardiac Troponin T antibody

Immunofluorescence staining of Cardiac Troponin T using ab209813 in ab277612, which were differentiated for 10 days post induction.

The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% PBS-Tween for 5 mins and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab209813 at 1.0 µg/mL and ab7291, Mouse monoclonal [DM1A] to alpha Tubulin, at 1/1000 dilution. Cells were then incubated with ab150081, Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and ab150120, Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) preadsorbed at 1/1000 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown. Gamma is adjusted to 1.5 in all channels.

The antibody ab209813 also gave a positive staining using MeOH fixation (100%, 5 min).



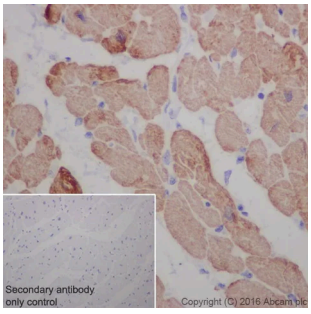
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiac Troponin T antibody [EPR20266] (ab209813)

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

Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue labeling Cardiac Troponin T with ab209813 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.
Negative control: No staining on human skeletal muscle [PMID: 11375287].

Counter stained with Hematoxylin.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiac Troponin T antibody [EPR20266] (ab209813)

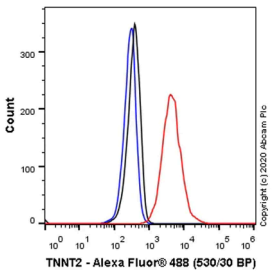
Cardiac Troponin T Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cardiac Troponin T antibody

Immunohistochemical analysis of paraffin-embedded human cardiac muscle tissue labeling Cardiac Troponin T with ab209813 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.
Cytoplasmic staining on human cardiac muscle is observed [PMID: 9068591].

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

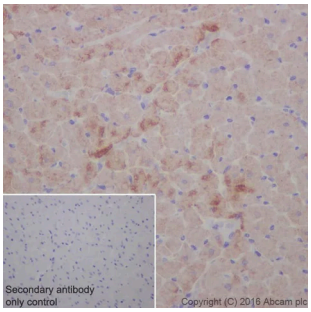
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Cardiac Troponin T antibody [EPR20266] (ab209813)

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

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HL-1 (Mouse atrial muscle cell) cells labelling Cardiac Troponin T with ab209813 at 1/500 dilution (0.1µg) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiac Troponin T antibody [EPR20266] (ab209813)

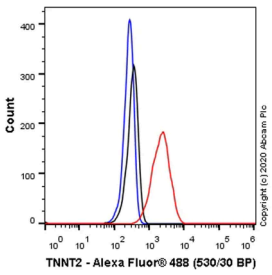
Cardiac Troponin T Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cardiac Troponin T antibody

Immunohistochemical analysis of paraffin-embedded mouse cardiac muscle tissue labeling Cardiac Troponin T with ab209813 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.
Cytoplasmic staining on mouse cardiac muscle is observed [PMID: 9068591].

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

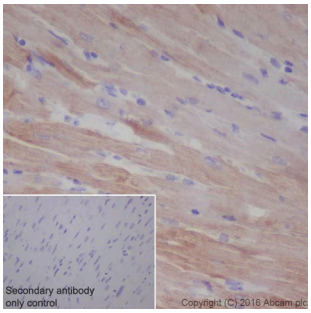
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Cardiac Troponin T antibody [EPR20266] (ab209813)

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

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized L6 (Rat skeletal muscle myoblast) cells labelling Cardiac Troponin T with ab209813 at 1/500 dilution (0.1µg) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiac Troponin T antibody [EPR20266] (ab209813)

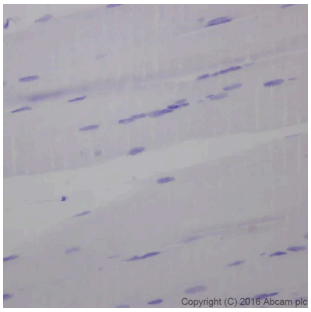
Cardiac Troponin T Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cardiac Troponin T antibody

Immunohistochemical analysis of paraffin-embedded rat cardiac muscle tissue labeling Cardiac Troponin T with ab209813 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.
Cytoplasmic staining on rat cardiac muscle is observed [PMID: 9068591].

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



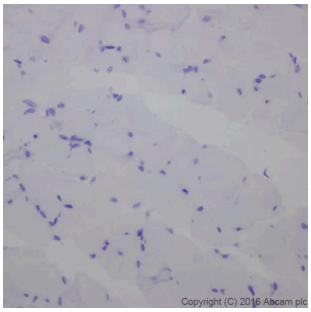
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiac Troponin T antibody [EPR20266] (ab209813)

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

Immunohistochemical analysis of paraffin-embedded rat skeletal muscle tissue labeling Cardiac Troponin T with ab209813 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.
Negative control: No staining on rat skeletal muscle [PMID: 11375287].

Counter stained with Hematoxylin.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



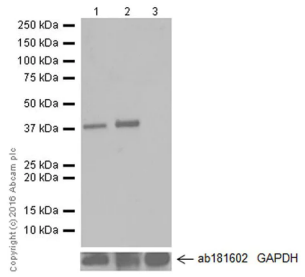
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Cardiac Troponin T Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cardiac Troponin T antibody

Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue labeling Cardiac Troponin T with ab209813 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.
Negative control: No staining on mouse skeletal muscle [PMID: 11375287].

Counter stained with Hematoxylin.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-Cardiac Troponin T antibody [EPR20266] (ab209813)

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

Blocking/Dilution buffer: 5% NFDM/TBST.
Troponin T exists in three tissue-specific subtypes: slow skeletal troponin T1 (ssTnT/TNNT1), fast skeletal troponin T3 (fsTnT/TNNT3) and cardiac troponin T2 (cTnT/TNNT2). The product is specific to cTnT/TNNT2.

Negative control: human skeletal muscle (PMID: 10585344).

The observed molecular weight is consistent with the literature (PMID: 10451242).

All lanes:
Western blot - Anti-Cardiac Troponin T antibody [EPR20266] (ab209813) at 1/5000 dilution

Lane 1:
Human fetal heart lysate at 20 µg

Lane 2:
Mouse heart lysate at 20 µg

Lane 3:

Human skeletal muscle lysate at 20 µg

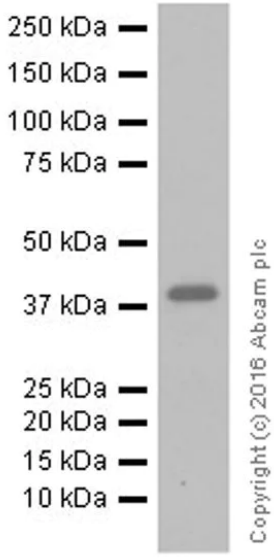
Secondary

All lanes:
Western blot - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/4000 dilution

Predicted band size: 35 kDa

Observed band size: 39 kDa

Exposure time: 1s



Western blot - Anti-Cardiac Troponin T antibody [EPR20266] (ab209813)

Cardiac Troponin T Western blot staining of Rat heart lysate using rabbit Anti-Cardiac Troponin T antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
The observed molecular weight is consistent with the literature (PMID: 10451242).

All lanes:
Western blot - Anti-Cardiac Troponin T antibody [EPR20266] (ab209813) at 1/5000 dilution

All lanes:
Rat heart lysate at 10 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 35 kDa

Observed band size: 39 kDa

Exposure time: 1s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.