abcam

ab47003

Anti-Cardiac Troponin I antibody

Anti-Cardiac Troponin I antibody (ab47003) is a rabbit polyclonal antibody detecting Cardiac Troponin I in **Western Blot, Flow Cytometry, IHC-P, IHC-Fr, ICC/IF, ELISA**. Suitable for **Human, Mouse, Pig, Rat**.

- Over 140 publications
- Trusted since 2007

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Polyclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Purification technique	Affinity purification Immunogen
Concentration	0.9 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Expected

Species	Mouse
Dilution info	-

Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Rat
Dilution info	-
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Pig
Dilution info	-
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Human
Dilution info	-
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Chimpanzee
Dilution info	-
Notes	-

ELISA

Expected

Species	Mouse, Rat, Pig, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Chimpanzee
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1 µg/mL
Notes	-

Species	Rat
Dilution info	1 µg/mL
Notes	-

Species	Pig
Dilution info	1/20000
Notes	-

Species	Human
Dilution info	1 µg/mL
Notes	-

Predicted

Species	Chimpanzee
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/200
Notes	-

Expected

Species	Mouse, Rat, Pig

Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Chimpanzee
Dilution info	-
Notes	-

IHC-Fr

Expected

Species	Mouse, Rat, Pig, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Chimpanzee
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

Species	Mouse, Rat, Pig
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Chimpanzee
Dilution info	-
Notes	-

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	Blue Ice
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

Anti-Cardiac Troponin I antibody (ab47003) is a rabbit polyclonal antibody and is validated for use in ELISA, Flow Cyt, ICC/IF, IHC-Fr, IHC-P, WB in african green monkey, human, mouse, rat samples.

Anti-Cardiac Troponin I antibody (ab47003) has been cited over 147 times in peer reviewed journals and is trusted by the scientific community.

Abcam's high quality validation processes ensure Anti-Cardiac Troponin I antibody (ab47003) has high sensitivity and specificity.

Anti-Cardiac Troponin I antibody (ab47003) has 17 independent reviews from customers.

Anti-Cardiac Troponin I antibody (ab47003) specifically detects Cardiac Troponin I (UniProt ID: P19429; Molecular weight: 24kDa) and is sold in a 100 µg selling size.

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

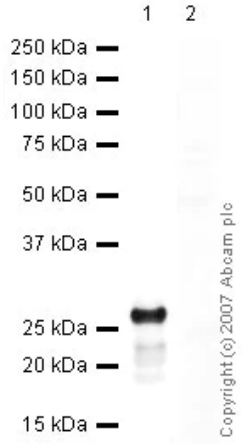
We do not recommend this combination. It is not covered by our product promise.

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.

6 product images



Western blot - Anti-Cardiac Troponin I antibody (ab47003)

All lanes:
Western blot - Anti-Cardiac Troponin I antibody (ab47003) at 1 µg/mL

Lane 1:
Human heart tissue lysate - total protein (ab29431) at 10 µg

Lane 2:
Human liver tissue lysate - total protein (ab29889) at 10 µg

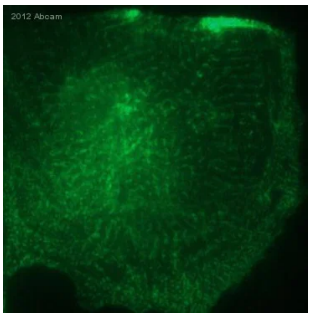
Secondary

All lanes:
IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 24 kDa

Observed band size: 26 kDa

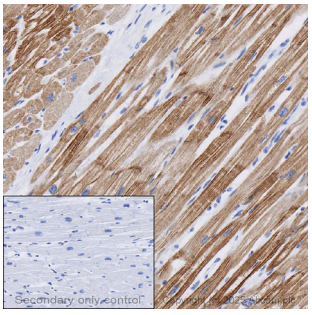


This image is courtesy of an anonymous customer review

Immunocytochemistry/ Immunofluorescence - Anti-Cardiac Troponin I antibody (ab47003)

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

ab47003 staining Cardiac Troponin I in Human cardiomyocytes by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with 0.1% Triton X-100 and blocked with 1% BSA for 30 minutes at 20°C. Samples were incubated with primary antibody (1/200 in PBS + 1% BSA) for 1 hour at 20°C. An undiluted FITC-conjugated Goat anti-rabbit IgG polyclonal was used as the secondary antibody.



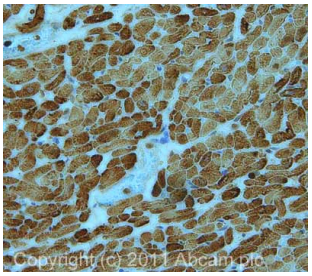
Immunohistochemistry - Anti-Cardiac Troponin I antibody (ab47003)

Cardiac Troponin I Immunohistochemistry staining of Human heart tissue using rabbit Anti-Cardiac Troponin I antibody

Immunohistochemical analysis of formalin fixed paraffin embedded human heart labelling cardiac Troponin I with ab47003 at a concentration of 0.5µg/ml. The immunostaining was performed on a Ventana DISCOVERY ULTRA (Roche Tissue Diagnostics) instrument with a OptiView DAB IHC Detection Kit. Heat mediated antigen retrieval was performed with DISCOVERY cell conditioning solution (CC1) 100°C, pH8.5 for 32mins.

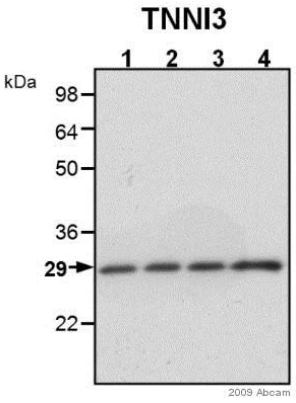
ab47003 anti-Cardiac Troponin I antibody was incubated for 16mins at 37°C. Sections were counterstained with Hematoxylin II. Image inset shows absence of staining in secondary antibody only control.

Customers are encouraged to optimise antigen retrieval conditions, antibody concentration, incubation times and temperature for best results in their own IHC assay workflow (automated and manual)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiac Troponin I antibody (ab47003)

IHC image of Cardiac Troponin I staining in human heart formalin fixed paraffin embedded tissue section, performed on a Leica Bond^{TM} 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 ab47003, 1µg/ml, 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.



This image is courtesy of a customer review submitted by Dr. Mario Torrado

Western blot - Anti-Cardiac Troponin I antibody (ab47003)

Cardiac Troponin I Western blot staining of Pig Heart whole cell lysate using rabbit Anti-Cardiac Troponin I antibody

Blocking Step: 20% Serum for 3 hours at 24°C
All lanes:
Western blot - Anti-Cardiac Troponin I antibody (ab47003) at 1/20000 dilution

All lanes:
Pig Heart whole cell lysate at 4 µg

Secondary

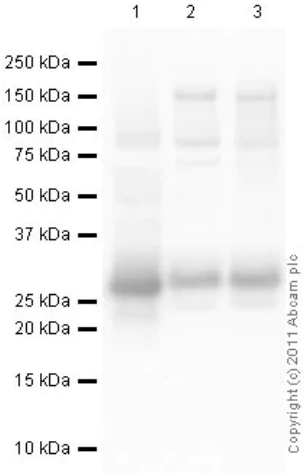
All lanes:
An HRP-conjugated Goat anti-rabbit polyclonal at 1/20000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 24 kDa

Observed band size: 29 kDa



Western blot - Anti-Cardiac Troponin I antibody (ab47003)

All lanes:
Western blot - Anti-Cardiac Troponin I antibody (ab47003) at 1 µg/mL

Lane 1:
Human heart tissue lysate - total protein (ab29431) at 10 µg

Lane 2:
Heart (Mouse) Tissue Lysate at 10 µg

Lane 3:
Heart (Rat) Tissue Lysate at 10 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 24 kDa

Observed band size: 160 kDa, 26 kDa, 80 kDa

Exposure time: 3min

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