

Datasheet: AHP1268

BATCH NUMBER 160328

Description:	GOAT ANTI HUMAN TROPONIN I (CARDIAC)
Specificity:	TROPONIN I (CARDIAC)
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	0.2 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Frozen	▪			
ELISA	▪			
Western Blotting	▪			
Immunofluorescence	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using the appropriate negative/positive controls.

Target Species

Human

Product Form

Purified IgG - liquid

Preparation

Purified IgG prepared by Immunoaffinity chromatography

Antiserum Preparation

Antisera to human cardiac troponin I were raised by repeated immunisations of goats with highly purified antigen.

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

<0.1% Sodium Azide (NaN₃)

Approx. Protein Concentrations

IgG concentration 1.0mg/ml

Immunogen Native human cardiac troponin I, purity greater than 98%.

External Database

Links

UniProt:

[P19429](#) [Related reagents](#)

Entrez Gene:

[7137](#) TNNI3 [Related reagents](#)

Synonyms

TNNC1

RRID

AB_844683

Specificity

Goat anti Human Troponin I antibody recognizes human cardiac-specific troponin I, (TnI) an integral inhibitory protein of cardiac muscle which exists as a complex with troponin C (TnC) and troponin T (TnT).

The TnT subunit of troponin binds to tropomyosin to form a troponin-tropomyosin complex, anchored in place by the binding of TnI to actin, within muscle thin filaments. Structural change resulting from the binding of calcium to specific sites on the regulatory TnC subunit, releases the inhibitory region of TnI from actin, enabling the attachment of the molecular motor protein myosin, allowing for muscle contraction and hence movement.

The measurement of blood TnI and TnT levels is an important diagnostic indicator of heart muscle damage, and can be used to differentiate between angina and myocardial infarction in patients with chest pain. Troponin I has also been shown to inhibit angiogenesis *in vivo* and *in vitro*.

References

1. Jin, J. *et al.* (2009) Transplantation of mesenchymal stem cells within a poly(lactide-co-epsilon-caprolactone) scaffold improves cardiac function in a rat myocardial infarction model. [Eur J Heart Fail. 11: 147-53.](#)
 2. Demyanets, S. *et al.* (2013) Components of the interleukin-33/ST2 system are differentially expressed and regulated in human cardiac cells and in cells of the cardiac vasculature. [J Mol Cell Cardiol. 60: 16-26.](#)
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Further Reading

1. Takeda, S. (2005) Crystal structure of troponin and the molecular mechanism of muscle regulation. [J Electron Microsc \(Tokyo\). 54 Suppl 1: i35-41.](#)
 2. Jeremias, A. & Gibson, C.M. (2005) Narrative review: alternative causes for elevated cardiac troponin levels when acute coronary syndromes are excluded. [Ann Intern Med. 142 \(9\): 786-91.](#)
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Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10040 available at:
<https://www.bio-rad-antibodies.com/SDS/AHP1268>
10040

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Goat IgG (Fc) (STAR122...) [FITC](#), [HRP](#)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

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