Datasheet: AHP1268

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	0.09% Sodium Azide (NaN_3)
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
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 myocardic 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.
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.
Storage	Store at +4ºC or at -20ºC if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation available at: Material Safety Datasheet Documentation #10040 available at: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

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

'M259752:140904'

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