

Datasheet: MCA2780

Description:	MOUSE ANTI HUMAN TROPONIN I (CARDIAC/PHOSPHORYLATED)
Specificity:	TROPONIN I (CARDIAC/PHOSPHORYLATED)
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	1G11
Isotype:	IgG2b
Quantity:	0.2 mg

Product Details

RRID AB_2206266

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
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting	▪			

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species Human

Species Cross Reactivity Reacts with: Rat, Cat, Bovine, Dog, Goat, Pig
N.B. Antibody reactivity and working conditions may vary between species.

Product Form Purified IgG - liquid

Preparation Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution Phosphate buffered saline

Preservative Stabilisers 0.09% Sodium Azide

Approx. Protein Concentrations IgG concentration 1 mg/ml

Immunogen Phosphorylated form of human cardiac Troponin I.

**External Database
Links**

UniProt:

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

Entrez Gene:

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

Synonyms

TNNC1

Fusion Partners

Spleen cells from immunised BALB/c mice were fused with cells of the SP2/0 mouse myeloma cell line.

Specificity

Mouse anti Human Troponin I (Cardiac/Phosphorylated) antibody, clone 1G11 recognizes the phosphorylated form of human cardiac Troponin I (cTnI). Troponin I is a 24kDa subunit of Troponin, a protein found on muscle tissue responsible for muscle contraction. When calcium binds to Troponin C, a conformational change moves Troponin I and tropomyosin out of the way of the myosin binding sites on the actin filaments in muscles. This allows cross-bridging to occur and the muscle to contract. Levels of cTnI in serum are commonly used as a marker for cardiac cell damage and death.

Phosphorylation of cTnI results in changes in the activity and function of Troponin. One possible form of phosphorylation is by Protein kinase A. Protein kinase A phosphorylation of serine 22 and serine 23 reduces calcium sensitivity of Troponin and leads to an acceleration in relaxation. Changes in cTnI phosphorylation have been reported in failing hearts.

Mouse anti Human Troponin I (Cardiac/Phosphorylated) antibody, clone 1G11 recognizes free cTnI and cTnI in complex with other Troponin components. It does not cross-react with skeletal Troponin I.

References

1. Sakthivel, S. *et al.* (2005) In vivo and in vitro analysis of cardiac troponin I phosphorylation. [J Biol Chem. 280 \(1\): 703-14.](#)
2. Layland, J. *et al.* (2005) Regulation of cardiac contractile function by troponin I phosphorylation. [Cardiovasc Res. 66 \(1\): 12-21.](#)

Storage

Store at +4°C or at -20°C 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.

Guarantee

18 months from date of despatch.

**Health And Safety
Information**

Material Safety Datasheet documentation #10040 available at:
10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)

Goat Anti Mouse IgG (STAR77...) [HRP](#)

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Rabbit Anti Mouse IgG (STAR8...) [DyLight@800](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Human Anti Mouse IgG2b (HCA038...) [FITC](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@680](#),
[DyLight@800](#), [FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL \(MCA691\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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Printed on 11 Oct 2019

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