

Product datasheet

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ARG52453 anti-Cardiac Troponin I phospho (Ser23 / Ser24) antibody

Package: 50 μl Store at: -20°C

Summary

Product Description Rabbit Polyclonal antibody recognizes Cardiac Troponin I phospho (Ser23 / Ser24)

Tested Reactivity Ms, Rat

Predict Reactivity Hu, NHuPrm

Tested Application WB

Host Rabbit

Clonality Polyclonal

Isotype IgG

Target Name Cardiac Troponin I

Species Mouse

Immunogen Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser23/24 conjugated to

KLH

Conjugation Un-conjugated

Alternate Names RCM1; cTnl; Cardiac troponin I; TNNC1; CMD1FF; CMD2A; Troponin I, cardiac muscle; CMH7

Application Instructions

Application table	Application	Dilution
	WB	1:1000
Application Note	Specific for the ~25k cardiac troponin I protein phosphorylated at Ser23/24. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form Liquid

Purification Affinity Purified

Buffer 10 mM HEPES (pH 7.5), 150 mM NaCl, 0.1 mg/ml BSA and 50% Glycerol

Stabilizer 0.1 mg/ml BSA, 50% Glycerol

Storage instruction For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links GenelD: 21954 Mouse

GeneID: 29248 Rat

Swiss-port # P23693 Rat

Swiss-port # P48787 Mouse

Gene Symbol TNNI3

Gene Full Name troponin I, cardiac 3

Background Troponin I (cTnI) is 1 of 3 subunits, along with troponin C (TnC) and troponin T (TnT) of troponin

complex found in cardiac muscle. cTnl binds to actin in thin myofilaments to hold the troponin-tropomyosin complex in place, and when cTnl is phosphorylated by protein kinase C and protein kinase A at Ser23/24 it causes regulation of Ca2+- stimulated ATPase (Noland et al, 1995). Evidence suggests that phosphorylation of both serines 23 and 24 is required for the reduction in Ca2+- sensitivity and beneficial for relaxation of the heart (Kooij et al, 2010). Ser23/24 phosphorylation is important for enhanced relaxation in response to prolonged activation of protein kinase C by endothelin in intact myocytes, while Thr144 plays an important role in the acute acceleration of relaxation (Westfall et al,

2005).

Research Area Cell Biology and Cellular Response antibody; Controls and Markers antibody; Developmental Biology

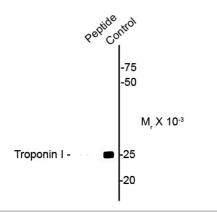
antibody; Signaling Transduction antibody

Calculated Mw 24 kDa

PTM Phosphorylated at Ser-42 and Ser-44 by PRKCE; phosphorylation increases myocardium contractile

dysfunction (By similarity). Phosphorylated at Ser-23 and Ser-24 by PRKD1; phosphorylation reduces myofilament calcium sensitivity. Phosphorylated preferentially at Thr-31. Phosphorylation by STK4/MST1 alters its binding affinity to TNNC1 (cardiac Tn-C) and TNNT2 (cardiac Tn-T).

Images



ARG52453 anti-Cardiac Troponin I phospho (Ser23 / Ser24) antibody WB image

Western blot: Mouse heart homogenate showing specific immunolabeling of the ~25k cTnI protein phosphorylated at Ser 23/24 (control) stained with ARG52453 anti-Cardiac Troponin I phospho (Ser23 / Ser24) antibody.

Immunolabeling is blocked by preadsorption with the phospho-

peptide used as antigen (Peptide).

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