

## 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; cTnI; 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	<a href="#">GeneID: 21954 Mouse</a> <a href="#">GeneID: 29248 Rat</a> <a href="#">Swiss-port # P23693 Rat</a> <a href="#">Swiss-port # P48787 Mouse</a>
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. cTnI binds to actin in thin myofilaments to hold the troponin-tropomyosin complex in place, and when cTnI is phosphorylated by protein kinase C and protein kinase A at Ser23/24 it causes regulation of Ca <sup>2+</sup> -stimulated ATPase (Noland et al, 1995). Evidence suggests that phosphorylation of both serines 23 and 24 is required for the reduction in Ca <sup>2+</sup> -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

