ARG10144
anti-Cardiac Troponin I antibody [4C2]

Package: 200 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [4C2] recognizes Cardiac Troponin I
Tested Reactivity	Hu, Ms, Rat, Bov, Dog, Pig
Tested Application	ELISA, IHC-P, WB
Host	Mouse
Clonality	Monoclonal
Clone	4C2
Isotype	IgG2a
Target Name	Cardiac Troponin I
Species	Human
Immunogen	free human cTnI, native human cTn complex, or human cTnI peptides.
Epitope	a.a. 23-29 (SSNYRAYA)
Conjugation	Un-conjugated
Alternate Names	RCM1; cTnI; Cardiac troponin I; TNNC1; CMD1FF; CMD2A; Troponin I, cardiac muscle; CMH7

Application Instructions

Application table

Application	Dilution
ELISA	Assay-dependent
IHC-P	1 µg/ml
WB	Assay-dependent

Application Note

ELISA: This antibody (in biotinylated form) can be used as capture antibody in sandwich ELISA in combination with Eu-labeled ARG10125 anti-Cardiac Troponin I antibody [19C7] as detection antibody.
IHC-P: Antigen Retrieval: Heat mediated was performed using Tris/EDTA buffer pH 9.0 or citrate buffer pH 6.0.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

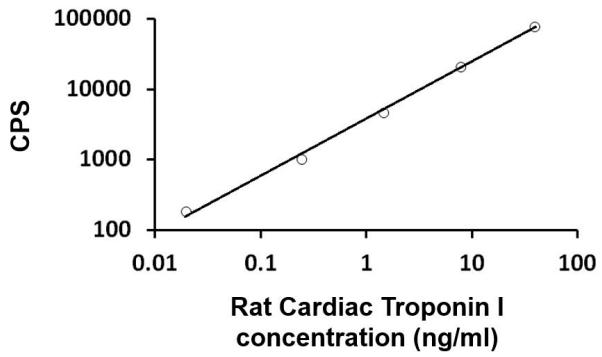
Form	Liquid
Purification	Protein A affinity purified.
Buffer	PBS (pH 7.4) and 0.1% Sodium azide
Preservative	0.1% Sodium azide
Concentration	1.0-2.0 mg/ml

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 or below. 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

Gene Symbol	TNNI3
Gene Full Name	troponin I type 3 (cardiac)
Background	Troponin I (TnI), along with troponin T (TnT) and troponin C (TnC), is one of 3 subunits that form the troponin complex of the thin filaments of striated muscle. TnI is the inhibitory subunit; blocking actin-myosin interactions and thereby mediating striated muscle relaxation. The TnI subfamily contains three genes: TnI-skeletal-fast-twitch, TnI-skeletal-slow-twitch, and TnI-cardiac. This gene encodes the TnI-cardiac protein and is exclusively expressed in cardiac muscle tissues. Mutations in this gene cause familial hypertrophic cardiomyopathy type 7 (CMH7) and familial restrictive cardiomyopathy (RCM). [provided by RefSeq, Jul 2008]
Function	Troponin I is the inhibitory subunit of troponin, the thin filament regulatory complex which confers calcium-sensitivity to striated muscle actomyosin ATPase activity. [UniProt]
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



ARG10144 anti-Cardiac Troponin I antibody [4C2] ELISA image

Sandwich ELISA: Calibration curve for purified Rat Cardiac Troponin I. ARG10144 anti-Cardiac Troponin I antibody [4C2] (in biotinylated form) can be used as capture antibody in sandwich ELISA in combination with Eu-labeled ARG10125 anti-Cardiac Troponin I antibody [19C7] as detection antibody.

Loading: 200 ng/well of capture and detection antibodies.