Datasheet for ABIN2688864

anti-Cardiac Troponin T2 antibody (PE)

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Overview

Quantity:	50 tests
Target:	Cardiac Troponin T2 (cTnT)
Reactivity:	Human, Mouse, Rat, Pig, Rabbit, Dog, Chicken, Guinea Pig
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Cardiac Troponin T2 antibody is conjugated to PE
Application:	Intracellular Staining (ICS)

Product Details

Brand:	BD Pharmingen™
Immunogen:	Rabbit cardiac troponin T Protein
Clone:	13
Isotype:	IgG1 kappa
Characteristics:	The 13-11 monoclonal antibody specifically recognizes Troponin T type 2 (cardiac), encoded by the gene TNNT2. Troponin T is the tropomyosin-binding subunit of the troponin complex, which also encompasses troponin C and troponin I. This complex regulates muscle contraction in skeletal and cardiac muscle in response to alterations in calcium levels. Troponin T type 2 is solely found in the heart, and genetic alterations in the TNNT2 gene are associated to a series of heart disorders in humans, including hypertrophic cardiomyopathy, dilated cardiomyopathy and left ventricular noncompaction. Cardiac Troponin T can be used as a marker for the identification of cardiomyocytes derived from pluripotent stem cells. Flow cytometric analysis

Product Details

	of Cardiac Troponin T in human cardiomyocytes differentiated in vitro. Human embryonic stem cell-derived cardiomyocytes (Evans lab, UCSD) were disassociated and fixed in BD Cytofix™ Fixation Buffer (Cat. No. 554655) and permeabilized with BD Phosflow™ Perm/Wash Buffer I (Cat. No. 557885). The cells were stained with either PE Mouse IgG1, κ Isotype Control (Cat. No. 554680, dashed line) or PE Mouse Anti-Cardiac Troponin T (solid line). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells. Flow cytometry was performed on a BD LSR Fortessa™ flow cytometry system. Flow cytometric analysis of Cardiac Troponin T in mouse cardiomyocytes differentiated in vitro. The C2C12 mouse myoblast cell line (ATCC CRL-1772) was cultured for 5 days in low-serum conditions for induction of cell differentiation, fixed with BD Cytofix™ Fixation Buffer, and permeabilized with BD Perm/Wash™ Buffer (Cat. No. 554723). The cells were stained with either PE Mouse IgG1, κ Isotype Control (dashed line) or PE Mouse Anti-Cardiac Troponin T (solid line). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells. Flow cytometry was performed on a BD FACSCanto™ II flow cytometry system. 564767 Rev. 1 Page 1 of 2 BD Pharmingen™ PE Mouse Anti-Cardiac Troponin T - PE - Clone 13-11 - Isotype Mouse IgG1, κ - Reactivity Ms, Hu, Chick, Dog, G Pig, Pig, Rab, Rat - 50 Tests
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	Cardiac Troponin T2 (cTnT)
Alternative Name:	Cardiac Troponin T (cTnT Products)
Background:	Synonyms: cTnT, Cardiac Muscle Troponin T, Troponin T type 2, TNNT2

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Sample Volume:	5 µL
Restrictions:	For Research Use only

Handling

Buffer:	Aqueous buffered solution containing BSA and ≤0.09 % sodium azide.

Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.
Storage:	4 °C
Storage Comment:	Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Publications

Product cited in:

Jáchymová, Muravská, Paleček, Kuchynka, Řeháková, Magage, Kr��l, Zima, Horký, Linhart: " Genetic variation screening of TNNT2 gene in a cohort of patients with hypertrophic and dilated cardiomyopathy." in: **Physiological research / Academia Scientiarum Bohemoslovaca**, Vol. 61, Issue 2, pp. 169-75, (2012) (PubMed).

Lian, Hsiao, Wilson, Zhu, Hazeltine, Azarin, Raval, Zhang, Kamp, Palecek: "Robust cardiomyocyte differentiation from human pluripotent stem cells via temporal modulation of canonical Wnt signaling." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 109, Issue 27, pp. E1848-57, (2012) (PubMed).

Uosaki, Fukushima, Takeuchi, Matsuoka, Nakatsuji, Yamanaka, Yamashita: "Efficient and scalable purification of cardiomyocytes from human embryonic and induced pluripotent stem cells by VCAM1 surface expression." in: **PLoS ONE**, Vol. 6, Issue 8, pp. e23657, (2011) (PubMed).

Zhang, Wilson, Soerens, Koonce, Yu, Palecek, Thomson, Kamp: "Functional cardiomyocytes derived from human induced pluripotent stem cells." in: **Circulation research**, Vol. 104, Issue 4, pp. e30-41, (2009) (PubMed).

Mauritz, Schwanke, Reppel, Neef, Katsirntaki, Maier, Nguemo, Menke, Haustein, Hescheler, Hasenfuss, Martin: "Generation of functional murine cardiac myocytes from induced pluripotent stem cells." in: **Circulation**, Vol. 118, Issue 5, pp. 507-17, (2008) (PubMed).

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