Datasheet for ABIN112213

anti-ACTC1 antibody

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Overview

Quantity:	50 µg
Target:	ACTC1
Reactivity:	Human, Rabbit, Chicken, Cow
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This ACTC1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro)), Enzyme Immunoassay (EIA)

Product Details

Immunogen:	Synthetic NH2 terminus decapeptide of cardiac isoform of Actin.
Clone:	AC1-20-4-2
Isotype:	IgG1
Specificity:	This antibody is specific for Fetal (Cardiac) isoform of Actin. Clone Ac1 represents an excellent marker for cardiac tissue. It discriminates fetal (cardiac) alpha-Actin from all other Actin isoforms. Mab Ac1-20.4.2 shows no cross reaction with other Actin isoforms present in skeletal and smooth muscle, provided that stringent conditions have been applied (see Special Treatment).
Cross-Reactivity (Details):	Species reactivity (tested):Human, Bovine, Rabbit and Chicken.
Purification:	Affinity Chromatographyon Protein G.

Target Details

Target:	ACTC1
Abstract:	ACTC1 Products
Background:	Actins are highly conserved proteins that are involved in cell motility, structure, and integrity. ACTB/ACTC are nonmuscle cytoskeletal actins and major constituents of the contractile apparatus. Defects in ACTB are a cause of juvenile-onset dystonia. Defects in ACTC have been associated with idiopathic dilated cardiomyopathy (IDC) and familial hypertrophic cardiomyopathy (FHC). Fetal Actin can be localized in regenerating skeletal muscle after injury (in satellite cells) and in veins of the umbelical cord.
Gene ID:	70
NCBI Accession:	NP_005150
UniProt:	P68032
Pathways:	Myometrial Relaxation and Contraction

Application Details

Application Notes:	ELISA: 1/500. Western Blot: 1/1000 (using the ECL-enhanced procedure). Immunohistochemistry on Frozen Sections. Immunohistochemistry on Paraffin-Embedded Tissue: 1/10 (After microwave treatment). Incubation time: 1 h at RT. Special Treatment: It is necessary to include 0.5 M NaCl in all washing buffers forapplication on Frozen tissue and 1 M NaCl for Western blotting and ELISA to enhancespecifity. This is not necessary for Paraffin sections. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Restrictions:	For Research Use only

Handling

Reconstitution:	Restore in 1.0 mL distilled water.
Buffer:	Final Solution contains PBS, pH 7.4 with 0.09 % Sodium Azide as preservative and 0.5 % BSA as stabilizer.
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

Handling Advice:	Dilute only prior to immediate use. Avoid cycles of freezing and thawing.
Storage:	4 °C/-20 °C
Storage Comment:	Store the antibody (undiluted) at 2-8 °C for one month or (in aliquots) at -20 °C for longer.

Publications

Product cited in:

Skwarek-Maruszewska, Hotulainen, Mattila, Lappalainen: "Contractility-dependent actin dynamics in cardiomyocyte sarcomeres." in: **Journal of cell science**, Vol. 122, Issue Pt 12, pp. 2119-26, (2009) (PubMed).

Itzhaki-Alfia, Leor, Raanani, Sternik, Spiegelstein, Netser, Holbova, Pevsner-Fischer, Lavee, Barbash: "Patient characteristics and cell source determine the number of isolated human cardiac progenitor cells." in: **Circulation**, Vol. 120, Issue 25, pp. 2559-66, (2009) (PubMed).

Lechler, Wu, Bernhardt, Campean, Gastiger, Hackenbeck, Klanke, Weidemann, Warnecke, Amann, Engehausen, Willam, Eckardt, Rödel, Wiesener: "The tumor gene survivin is highly expressed in adult renal tubular cells: implications for a pathophysiological role in the kidney." in: **The American journal of pathology**, Vol. 171, Issue 5, pp. 1483-98, (2007) (PubMed).