

Datasheet for ABIN129657

anti-beta Actin antibody (AA 350-375)

10 Images

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Overview

Quantity:	200 µg
Target:	beta Actin (ACTB)
Binding Specificity:	AA 350-375
Reactivity:	Human, Mouse, Leopard Frog
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), ELISA, Immunofluorescence (IF), Fluorescence Microscopy (FM)

Product Details

Purpose:	Beta Actin Antibody
Immunogen:	<p>Immunogen: beta-Actin Loading Control Antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to C-Terminal region near amino acids 350-375 of Human beta Actin.</p> <p>Immunogen Type: Conjugated Peptide</p>
Isotype:	IgG
Cross-Reactivity (Details):	beta-Actin Loading Control Antibody is expected to cross-react with a wide range of species due to sequence homology. Anti-beta-Actin Loading Control Antibody reacts with Human, Rat, Monkey and Mouse.
Characteristics:	Synonyms: rabbit anti-beta Actin Antibody, Actin Antibody, Loading Control Antibody, beta actin, β actin, anti-beta actin antibody
Sterility:	Sterile filtered

Target Details

Target:	beta Actin (ACTB)
Alternative Name:	ACTB (ACTB Products)
Background:	Background: In vertebrates 3 main groups of actin isoforms, alpha, beta and gamma have been identified. Alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. Beta and gamma actins coexist in most cell types as components of the cyto-skeleton and as mediators of internal cell motility. Beta actins are highly conserved proteins that are involved in cell motility, structure and integrity. Beta actins are cytoplasmic proteins. Anti-Actin is a loading control antibody and is critical for the correct interpretation of your western blot. Beta-Actin Loading Control Antibody is used to normalize the levels of protein detected by confirming that protein loading is uniform across the gel.
NCBI Accession:	NP_001092
UniProt:	P60709
Pathways:	Myometrial Relaxation and Contraction , Cell-Cell Junction Organization , Maintenance of Protein Location , Phototransduction

Application Details

Application Notes:	<p>Application Note: Anti-beta Actin Antibody has been tested for use in ELISA, immunofluorescence, and western blot. Specific conditions for reactivity should be optimized by the end user. Beta actin present in fibroblast connective tissue stains very brightly. Beta actin present in neuromuscular junctions also stains. Paraformaldehyde fixation yields brighter staining than formalin or methanol fixation. Expect a band at ~42 kDa in size corresponding to beta actin by western blotting in the appropriate cell lysate or extract.</p> <p>Western Blot Dilution: 1:1,000 - 1:4,000</p> <p>ELISA Dilution: 1:10,000 - 1:40,000</p> <p>IF Microscopy Dilution: 1:500 - 1:2,000</p> <p>Other: User Optimized</p>
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1.0 mg/mL
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Handling

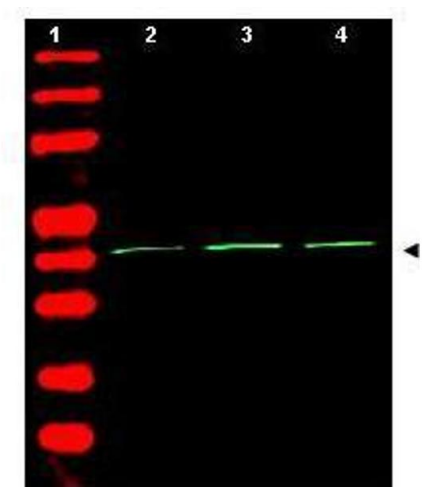
	Stabilizer: None
	Preservative: 0.01 % (w/v) Sodium Azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C, -20 °C
Storage Comment:	Store beta-Actin Loading Control Antibody at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiry Date:	12 months

Publications

Product cited in:	<p>Olive, Qin, DeCristo, Laszewski, Greathouse, McAllister: "Accounting for tumor heterogeneity when using CRISPR-Cas9 for cancer progression and drug sensitivity studies." in: PLoS ONE, Vol. 13, Issue 6, pp. e0198790, (2019) (PubMed).</p> <p>Dai, Luftig: "Intracellular BH3 Profiling Reveals Shifts in Antiapoptotic Dependency in Human B Cell Maturation and Mitogen-Stimulated Proliferation." in: Journal of immunology (Baltimore, Md. : 1950), Vol. 200, Issue 5, pp. 1727-1736, (2019) (PubMed).</p> <p>Borroni, Emanuelli, Shah, Ilić, Apel-Sarid, Paolini, Manikoth Ayyathan, Koganti, Levy-Cohen, Blank : "Smurf2 regulates stability and the autophagic-lysosomal turnover of lamin A and its disease-associated form progerin." in: Aging cell, Vol. 17, Issue 2, (2018) (PubMed).</p> <p>Coleman, Ha, Haeryfar, Barr, Kim: "Cathepsin B plays a key role in optimal production of the influenza A virus." in: Journal of virology & antiviral research, Vol. 2018, pp. 1-20, (2018) (PubMed).</p> <p>Lodola, Laforenza, Cattaneo, Ruffinatti, Poletto, Massa, Tancredi, Zuccolo, Khdar, Riccardi, Biggiogera, Rosti, Guerra, Moccia: "VEGF-induced intracellular Ca²⁺ oscillations are down-regulated and do not stimulate angiogenesis in breast cancer-derived endothelial colony forming cells." in: Oncotarget, Vol. 8, Issue 56, pp. 95223-95246, (2017) (PubMed).</p>
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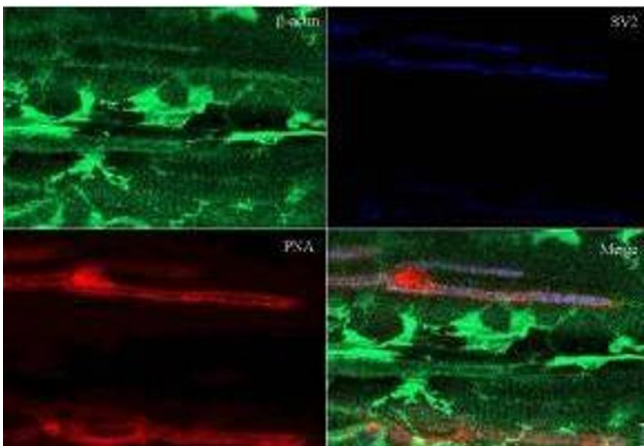
There are more publications referencing this product on: [Product page](#)

Images



Western Blotting

Image 1. Western Blot of Rabbit Anti-Beta Actin Antibody. Lane 1: molecular weight. Lane 2: human embryonic kidney 293. Lane 3: human lung carcinoma A549. Lane 4: mouse brain. Load: 35 µg per lane. Primary antibody: Beta Actin antibody at 1:1,500 for overnight at 4°C. Secondary antibody: rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~42 kDa corresponding to beta Actin (arrowhead). Other band(s): none.



Immunofluorescence

Image 2. Immunohistochemistry of Rabbit Anti-Beta Actin Antibody. Tissue: sections 4.2 mm thick of rana pipiens tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Beta Actin antibody at 1:200 for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: Beta Actin is at the neuromuscular junction. Staining: Beta Actin as precipitated green signal with red and blue counterstain.

Western Blotting

Image 3. Distinct functions of HOXD proteins in regulation of neuronal differentiation.(A-B) Phase contrast imaging (A) and NEFM immunofluorescent staining (B) of BE(2)-C/Tet-Off/myc-HOXD cells cultured in the presence or absence of Doxy for 7 days. Scale bars, 50 µm. Shown are representative of three independent experiments with similar results. (C) Immunoblot analysis of PHOX2B and NEFM protein levels in the same cell samples described in

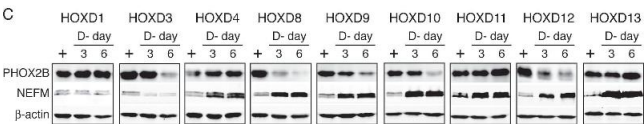


Figure 3. Beta-actin levels are shown as loading control. Shown are representative of two independent experiments with similar results. (D) Quantification of NEFM mRNA levels in BE(2)-C/Tet-Off/myc-HOXD cells cultured in the presence or absence of Doxy for 3 days. The NEFM mRNA levels in BE(2)-C/Tet-Off/myc-HOXD cells in the presence of Doxy were designated as 1.0 (dashed line). The data were from two independent samples with each being assayed in triplicates and analyzed using two-tailed Student's t-test with the p values indicated. Error bars, SD. - figure provided by CiteAb. Source: PMID26178079

Please check the [product details page](#) for more images. Overall 10 images are available for ABIN129657.