BOSTER BIOLOGICAL TECHNOLOGY
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Anti-beta Actin/ACTB Antibody Picoband®

Catalog Number: PA1872

About ACTB

beta-Actin (ACTB) also known as BETA-ACTIN or ACTIN, CYTOPLASMIC, 1, is one of six different actin isoforms which have been identified in humans. This is one of the two nonmuscle cytoskeletal actins. Actins are highly conserved proteins that are involved in cell motility, structure and integrity. Ueyama et al. (1996) used fluorescence in situ hybridization to map ACTB to 7p22. By PCR of somatic cell hybrid DNAs, they mapped 4 ACTB pseudogenes to other chromosomes. Karakozova et al. (2006) found that arginylation of beta-actin regulates cell motility. The majority of Ate1-null cells appeared smaller than wildtype cells and were apparently unable to form a lamella during movement along the substrate. Karakozova et al. (2006) concluded that arginylation of beta-actin apparently represents a critical step in the actin N-terminal processing needed for actin functioning in vivo.

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Overview

Product Name	Anti-beta Actin/ACTB Antibody Picoband®
Reactive Species	Chicken, Human, Monkey, Mouse, Rat, Zebrafish
Description	Boster Bio Anti-beta Actin/ACTB Antibody catalog # PA1872. Tested in WB applications. This antibody reacts with Human, Monkey, Mouse, Rat, Chicken, Zebrafish. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P60709

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antibody and ELISA experts

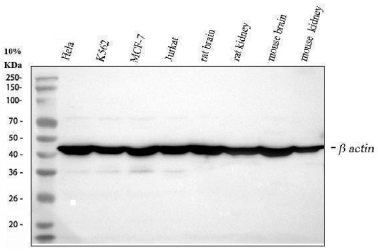
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Technical Details

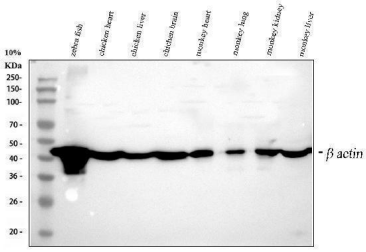
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human beta Actin, identical to the related rat and mouse sequences.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross reactivity with other proteins
Form	Lyophilized
Concentration	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Purification	The antibody was purified from rabbit antiserum by affinity-chromatography using phospho peptide. The antibody against non-phospho peptide was removed by chromatography using corresponding non-phospho peptide.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human, Monkey, Mouse, Rat, Chicken, Zebrafish

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Anti-beta Actin/ACTB Antibody Picoband® (PA1872) Images



Western blot analysis of beta Actin/ACTB using anti-beta Actin/ACTB antibody (PA1872). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human MCF-7 whole cell lysates, Lane 4: human Jurkat whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat kidney tissue lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse kidney tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-beta Actin/ACTB antigen affinity purified polyclonal antibody (Catalog # PA1872) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for beta Actin/ACTB at approximately 42 kDa. The expected band size for beta Actin/ACTB is at 42 kDa.



Western blot analysis of beta Actin/ACTB using anti-beta Actin/ACTB antibody (PA1872). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: zebrafish tissue lysates, Lane 2: chicken heart tissue lysates, Lane 3: chicken liver tissue lysates, Lane 4: chicken brain tissue lysates, Lane 5: monkey heart tissue lysates, Lane 6: monkey lung tissue lysates, Lane 7: monkey kidney tissue lysates, Lane 8: monkey liver tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-beta Actin/ACTB antigen affinity purified polyclonal antibody (Catalog # PA1872) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for beta Actin/ACTB at approximately 42 kDa. The expected band size for beta Actin/ACTB is at 42 kDa.

133 Publications Citing This Product

1. PubMed ID: 10.1074/jbc.M116.774836, The natural product mensacarcin induces mitochondrial toxicity and apoptosis in melanoma cells

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2. PubMed ID: 26064167, Gong T, Wang Cf, Yuan Jr, Li Y, Gu Jf, Zhao Bj, Zhang L, Jia Xb, Feng L, Liu Sl. Evid Based Complement Alternat Med. 2015;2015:630760. Doi: 10.1155/2015/630760. Epub 2015 May 3. Inhibition Of Tumor Growth And Immunomodulatory Effects Of Flavonoids...

3. PubMed ID: 22067127, Zhao M, Shi X, Liang J, Miao Y, Xie W, Zhang Y, Li X. Exp Eye Res. 2011 Dec;93(6):921-6. Doi: 10.1016/J.Exer.2011.10.013. Epub 2011 Nov 4. Expression Of Pro- And Anti-Angiogenic Isoforms Of Vegf In The Mouse Model Of Oxygen-Induced Retinopathy.

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Anti-beta Actin/ACTB Antibody

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