BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-Actin/ACTA1 Antibody Picoband®

Catalog Number: PB9751

About ACTA1

Actin, a highly conserved protein, is a major component of both the cytoskeletal and contractile structures in the cell types. It varies in amount, being related to the type of differentiation and to the functional state of cells and tissues. The actins exhibit over 90% sequence homology, but each isoform has a unique NH2-terminal sequence. The isoforms are comprised of three alpha-actin, one beta-actin, two gamma-actin. Because the amino acid sequence of the C-terminal is the same for almost all actins, this antibody has been raised using a synthetic peptide corresponding to the C-terminal 11 residues.

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Overview

Product Name	Anti-Actin/ACTA1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Actin/ACTA1 Antibody Picoband® catalog # PB9751. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat. 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	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	P68133

Technical Details

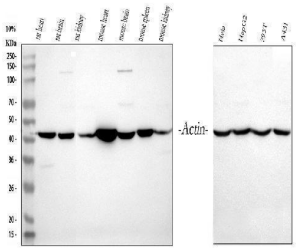
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Actin, identical to the related mouse and rat sequences.

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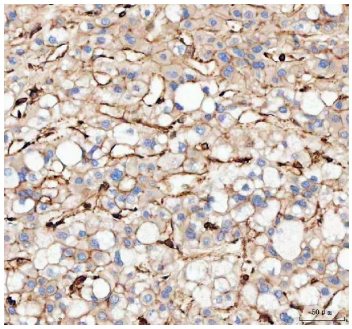
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, Mouse, Rat

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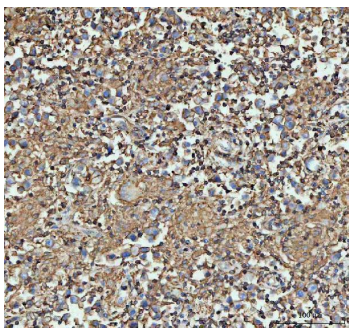
Anti-Actin/ACTA1 Antibody Picoband® (PB9751) Images



Western blot analysis of Actin using anti-Actin antibody (PB9751). 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: rat heart tissue lysates, Lane 2: rat brain tissue lysates, Lane 3: rat kidney tissue lysates, Lane 4: mouse heart tissue lysates, Lane 5: mouse brain tissue lysates, Lane 6: mouse spleen tissue lysates, Lane 7: mouse kidney tissue lysates, Lane 8: human Hela whole cell lysates, Lane 9: human HepG2 whole cell lysates, Lane 10: human 293T whole cell lysates, Lane 11: human A431 whole cell 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-Actin antigen affinity purified polyclonal antibody (Catalog # PB9751) 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 Actin at approximately 42 kDa. The expected band size for Actin is at 42 kDa.

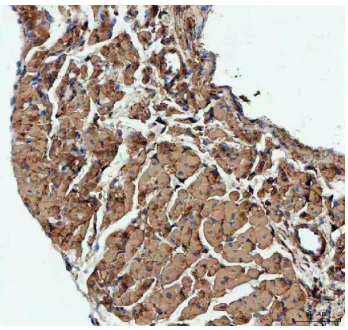


IHC analysis of Actin using anti-Actin antibody (PB9751). Actin was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Actin Antibody (PB9751) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

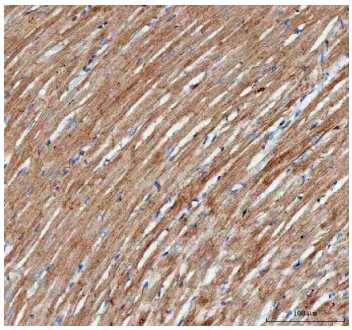


IHC analysis of Actin using anti-Actin antibody (PB9751). Actin was detected in a paraffin-embedded section of human testicular germ cell tumor tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Actin Antibody (PB9751) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

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IHC analysis of Actin using anti-Actin antibody (PB9751). Actin was detected in a paraffin-embedded section of mouse heart tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Actin Antibody (PB9751) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of Actin using anti-Actin antibody (PB9751). Actin was detected in a paraffin-embedded section of rat heart tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Actin Antibody (PB9751) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

69 Publications Citing This Product

1. PubMed ID: 33607154, Liao L,Huang L,Wei X,Yin L,Wei X,Li T.Bioinformatic and biochemical studies of formononetin against liver injure.Life Sci.2021 Feb 16:119229.doi:10.1016/j.lfs.2021.119229.Epub ahead of print.PMID:33607154.

2. PubMed ID: 33607154, Liao L,Huang L,Wei X,Yin L,Wei X,Li T.Bioinformatic and biochemical studies of formononetin against liver injure.Life Sci.2021 Feb 16:119229.doi:10.1016/j.lfs.2021.119229.Epub ahead of print.PMID:33607154.

3. PubMed ID: 32390601, Cheng J,Luan J,Chen P,Kuang X,Jiang P,Zhang R,Chen S,Cheng F,Gou X.Immunosuppressive receptor LILRB1 acts as a potential regulator in hepatocellular carcinoma by integrating with SHP1.Cancer Biomark.2020; 28(3):309-319.doi:10.3233/CBM-190940.PMID:32390601

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Anti-Actin/ACTA1 Antibody

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