BOSTER BIOLOGICAL TECHNOLOGY
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888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-IRS1 Antibody Picoband®

Catalog Number: PB9223

About IRS1

Insulin receptor substrate 1 (IRS-1) is a signalling adapter protein that in humans is encoded by the IRS-1 gene. It is mapped to 2q36.3. This gene exhibited no intrinsic enzyme activity, and it can serve as a docking protein involved in binding and activating other signal transduction molecules after being phosphorylated on tyrosine by insulin receptor kinase. IRS1 plays a key role in transmitting signals from the insulin and insulin-like growth factor-1 (IGF-1) receptors to intracellular pathways PI3K/Akt and Erk MAP kinase pathways. IRS1 also has important biological function for both metabolic and mitogenic (growth promoting) pathways. In addition to those, IRS1 is a key regulator of PI3K within malignant cells.

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Overview

Product Name	Anti-IRS1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-IRS1 Antibody Picoband® catalog # PB9223. Tested in Flow Cytometry, IF, IHC, ICC, 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	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg 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	P35568

Technical Details

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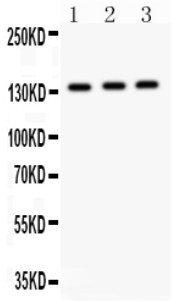
Immunogen	E.coli-derived human IRS1 recombinant protein (Position: S1041-Q1242). Human IRS1 shares 78% and 80% amino acid (aa) sequences identity with mouse and rat IRS1, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
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), 0.5-1ug/ml, Human, Rat Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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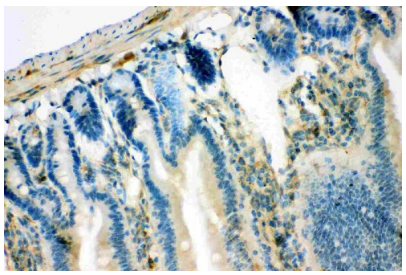
Anti-IRS1 Antibody Picoband® (PB9223) Images



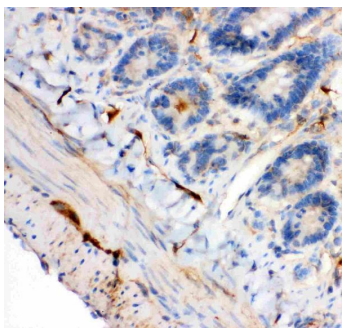
Anti-IRS1 antibody, PB9223, Western blottingAll lanes: Anti IRS1 (PB9223) at 0.5ug/mlWB: Recombinant Human IRS1 Protein 0.5ngPredicted bind size: 39KDObserved bind size: 39KD



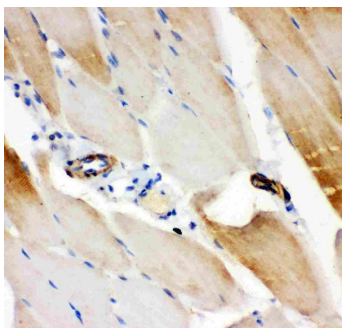
Anti-IRS1 antibody, PB9223, Western blottingAll lanes: Anti IRS1 (PB9223) at 0.5ug/mlLane 1: A549 Whole Cell Lysate at 40ugLane 2: MM453 Whole Cell Lysate at 40ugLane 3: JURKAT Whole Cell Lysate at 40ugPredicted bind size: 132KDObserved bind size: 132KD



Anti-IRS1 antibody, PB9223, IHC(P)IHC(P): Mouse Intestine Tissue

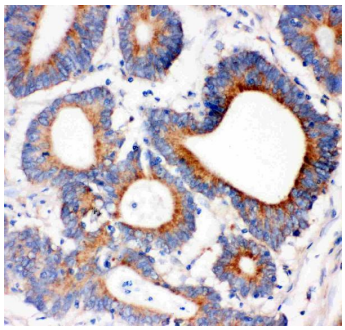


Anti-IRS1 antibody, PB9223, IHC(P)IHC(P): Rat Intestine Tissue

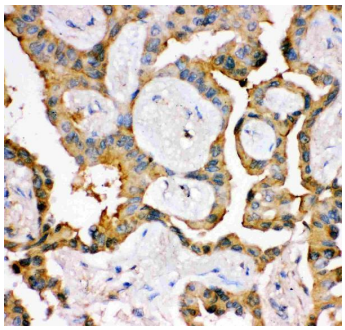


Anti-IRS1 antibody, PB9223, IHC(P)IHC(P): Rat Skeletal Muscle Tissue

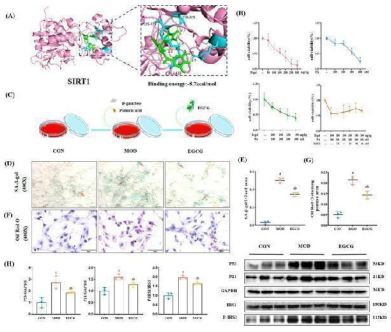
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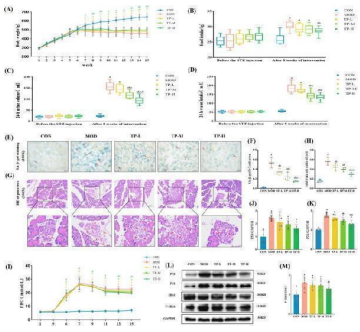
Anti-IRS1 antibody, PB9223, IHC(P)IHC(P): Human Intestinal Cancer Tissue



Anti-IRS1 antibody, PB9223, IHC(P)IHC(P): Human Lung Cancer Tissue



EGCG relieved senescence, IR, and lipid accumulation in the MPC5 model cells. (A) Molecular docking predicts the interaction of EGCG with SIRT1. (B) Determination of the optimal concentration of D-galactose, PA, D-galactose combined with PA and EGCG. n = 6. (C) The treatment of cell modeling in each group. (D, E) Representative SA-beta-gal staining images of MPC5 cells and the ratio of SA-beta-gal-positive cells. 400×, n = 3. (F, G) Representative Oil Red O images of MPC5 cells and quantitative analysis of positive area. 400×, n = 3. (H) Representative WB images and quantification of the level of P21, P53, and P-IRS1. n = 3. Compared with the CON group, a $p < 0.05$; compared with the MOD group, b $p < 0.05$. * symbol that the cell viability (%) of different group compared with the group of without any reagents, * $p < 0.05$.Index in PubMed under a CC BY license. PMID: 40801050



Effects of TP on the typical symptoms, IR, and senescence in the aged T2DM model rats. (A) Body weight (n = 10). (B) Food intake (n = 10). (C) 24 h urine volume (n = 10). (D) 24 h water intake (n = 10). (E, F) Representative SA-beta-gal staining images in kidney tissues of rats and the area of SA-beta-gal staining positive cells (100×, n = 3). (G, H) Representative HE images and quantitative analysis of islet vacuoles ratio to cells (200×, n = 3). (I) FBG (n = 10). (J–M) Representative WB images and quantification of the expression of P21, P53, and P-IRS1 (n = 6). Compared with the CON group, a $p < 0.05$; compared with the MOD group, b $p < 0.05$; compared with the TP-L group, c $p < 0.05$; compared with the TP-M group, d $p < 0.05$.Index in PubMed under a CC BY license. PMID: 40801050

2 Publications Citing This Product

BOSTER BIOLOGICAL TECHNOLOGY
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1. PubMed ID: PMID:26550236, Vibration exercise decreases insulin resistance and modulates the insulin signaling pathway in a type 2 diabetic rat model

2. PubMed ID: 25536154, Mi L, Chen Y, Zheng X, Li Y, Zhang Q, Mo D, Yang G. J Cell Biochem. 2015 Jul;116(7):1195-204. Doi: 10.1002/Jcb.25065. Microrna-139-5P Suppresses 3T3-L1 Preadipocyte Differentiation Through Notch And Irs1/Pi3K/Akt Insulin Signaling Pathways.

Visit bosterbio.com/anti-irs1-picoband-trade-antibody-pb9223-boster.html to see all 2 publications.

Anti-IRS1 Antibody

For Research Use Only. Not for use in diagnostic procedures.