

Anti-PITX2/RGS Antibody Picoband®

Catalog Number: A01636-1

About PITX2

Paired-like homeodomain transcription factor 2 also known as pituitary homeobox 2 is a protein that in humans is encoded by the PITX2 gene. It is mapped to 4q25. This gene encodes a member of the RIEG/PITX homeobox family, which is in the bicoid class of homeodomain proteins. The encoded protein acts as a transcription factor and regulates procollagen lysyl hydroxylase gene expression. This protein plays a role in the terminal differentiation of somatotroph and lactotroph cell phenotypes, is involved in the development of the eye, tooth and abdominal organs, and acts as a transcriptional regulator involved in basal and hormone-regulated activity of prolactin. Mutations in this gene are associated with Axenfeld-Rieger syndrome, iridogoniodysgenesis syndrome, and sporadic cases of Peters anomaly. A similar protein in other vertebrates is involved in the determination of left-right asymmetry during development. Alternatively spliced transcript variants encoding distinct isoforms have been described.

Overview

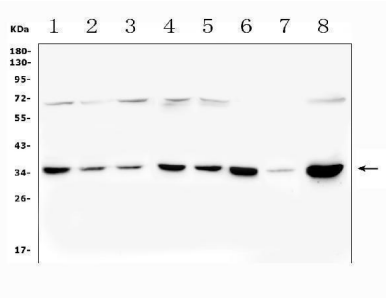
Product Name	Anti-PITX2/RGS Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PITX2/RGS Antibody Picoband® catalog # A01636-1. Tested in Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody 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, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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	Q99697

Technical Details

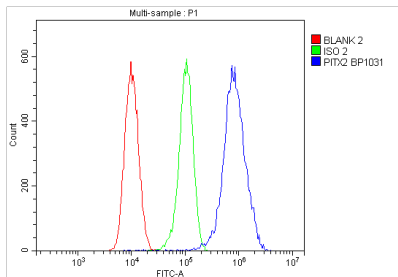
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human PITX2/RGS, identical to the related mouse and rat sequences.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.

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, 0.25-0.5ug/ml, Human, Mouse, Rat Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human

Anti-PITX2/RGS Antibody Picoband® (A01636-1) Images



Western blot analysis of PITX2 using anti-PITX2 antibody (A01636-1). 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 50ug of sample under reducing conditions. Lane 1: human Caco-2 whole cell lysates, Lane 2: human HEK293 whole cell lysates, Lane 3: human U2OS whole cell lysates, Lane 4: human Hela whole cell lysates, Lane 5: human A549 whole cell lysates, Lane 6: human U-87MG whole cell lysates, Lane 7: rat heart tissue lysates, Lane 8: mouse RAW246.7 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-PITX2 antigen affinity purified polyclonal antibody (Catalog # A01636-1) 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 1:10000 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 PITX2 at approximately 35KD. The expected band size for PITX2 is at 35KD.



Flow Cytometry analysis of 293T cells using anti-PITX2 antibody (A01636-1). Overlay histogram showing 293T cells stained with A01636-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PITX2 Antibody (A01636-1, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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Anti-PITX2/RGS Antibody

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