

Anti-SIX4 Antibody Picoband™

Catalog Number: A05695-1

About SIX4

Homeobox protein SIX4 is a protein that in humans is encoded by the SIX4 gene. This gene encodes a member of the homeobox family, subfamily SIX. The drosophila homolog is a nuclear homeoprotein required for eye development. Studies in mouse show that this gene product functions as a transcription factor, and may have a role in the differentiation or maturation of neuronal cells.

Overview

Product Name	Anti-SIX4 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-SIX4 Antibody Picoband™ catalog # A05695-1. Tested in ELISA, IF, ICC, WB, Flow Cytometry applications. This antibody reacts with Human.
Application	ELISA, Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	Q9UIU6

Technical Details

Immunogen	E.coli-derived human SIX4 recombinant protein (Position: Q387-L781).
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 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 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.

If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.

Some PubMed article(s) citing the expression level of this target are as follows:

Boster Bio's internal QC testing used:

Western blot, 0.25-0.5 µg/ml, Human

Immunocytochemistry/Immunofluorescence, 5 µg/ml, Human

Flow Cytometry (Fixed), 1-3 µg/1x10⁶ cells, Human

Direct ELISA, 0.1-0.5 µg/ml, Human

Anti-SIX4 Antibody Picoband™ (A05695-1) Images

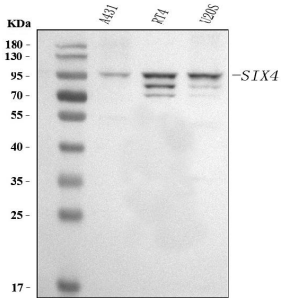


Figure 1. Western blot analysis of SIX4 using anti-SIX4 antibody (A05695-1).

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 30 ug of sample under reducing conditions.

Lane 1: human A431 whole cell lysates,

Lane 2: human RT4 whole cell lysates,

Lane 3: human U2OS 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-SIX4 antigen affinity purified polyclonal antibody (Catalog # A05695-1) 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 1:5000 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 SIX4 at approximately 95 kDa. The expected band size for SIX4 is at 95 kDa.

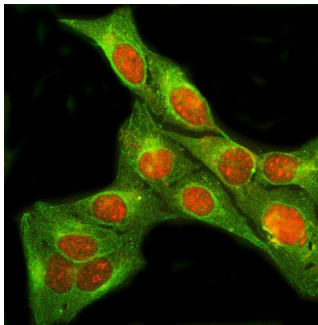


Figure 2. IF analysis of SIX4 using anti-SIX4 antibody (A05695-1) and anti-Beta Tubulin antibody (M01857-3). SIX4 was detected in immunocytochemical section of U2OS cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-SIX4 Antibody (A05695-1) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) and DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

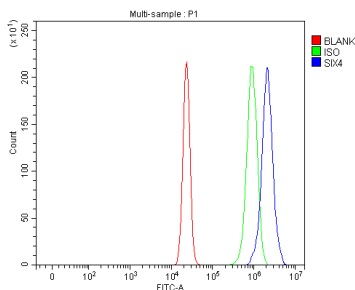


Figure 3. Flow Cytometry analysis of U2OS cells using anti-SIX4 antibody (A05695-1).

Overlay histogram showing U2OS cells stained with A05695-1 (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-SIX4 Antibody (A05695-1, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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