

Anti-IGF2R Antibody Picoband™ (monoclonal, 4I11)

Catalog Number: M00951-1

About IGF2R

Insulin-like growth factor 2 receptor, also called IGF2R or I-MPR is a protein that in humans is encoded by the IGF2R gene. This gene is mapped to 6q25.3. This gene encodes a receptor for both insulin-like growth factor 2 and mannose 6-phosphate, although the binding sites for either are located on different segments of the receptor. This receptor functions in the intracellular trafficking of lysosomal enzymes, the activation of transforming growth factor beta, and the degradation of insulin-like growth factor 2. While the related mouse gene shows exclusive expression from the maternal allele, imprinting of the human gene appears to be polymorphic, with only a minority of individuals showing expression from the maternal allele.

Overview

Product Name	Anti-IGF2R Antibody Picoband™ (monoclonal, 4I11)
Reactive Species	Human
Description	Boster Bio Anti-IGF2R Antibody Picoband™ (monoclonal, 4I11) catalog # M00951-1. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Monoclonal 4I11
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na ₂ HPO ₄ .
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	Mouse
Uniprot ID	P11717

Technical Details

Immunogen	E. coli-derived human IGF2R recombinant protein (Position: F424-R529).
Predicted Reactive Species	Hepatitis Virus
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG2a
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/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, 0.25-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry, 1-3ug/1x10⁶ cells, Human

Anti-IGF2R Antibody Picoband™ (monoclonal, 4I11) (M00951-1) Images

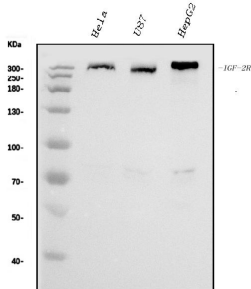


Figure 1. Western blot analysis of IGF2R using anti-IGF2R antibody (M00951-1).

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 30ug of sample under reducing conditions.

Lane 1: human HeLa whole cell lysates,

Lane 2: human U87 whole cell lysates,

Lane 3: human HepG2 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 mouse anti-IGF2R antigen affinity purified monoclonal antibody (Catalog # M00951-1) 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-mouse 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 # EK1001) with Tanon 5200 system. A specific band was detected for IGF2R at approximately 274KD. The expected band size for IGF2R is at 274KD.

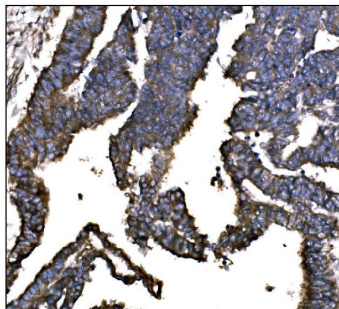


Figure 2. IHC analysis of IGF2R using anti-IGF2R antibody (M00951-1).

IGF2R was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-IGF2R Antibody (M00951-1) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

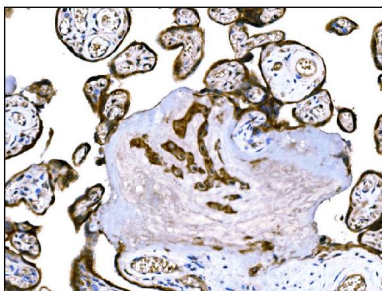
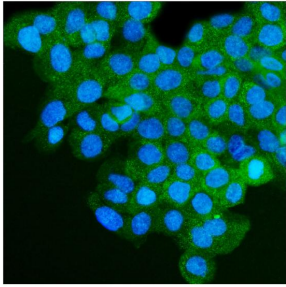


Figure 3. IHC analysis of IGF2R using anti-IGF2R antibody (M00951-1).

IGF2R was detected in paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-IGF2R Antibody (M00951-1) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

Figure 4. IF analysis of IGF2R using anti-IGF2R antibody (M00951-1).

IGF2R was detected in immunocytochemical section of A431



cells. 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 5ug/mL mouse anti-IGF2R Antibody (M00951-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

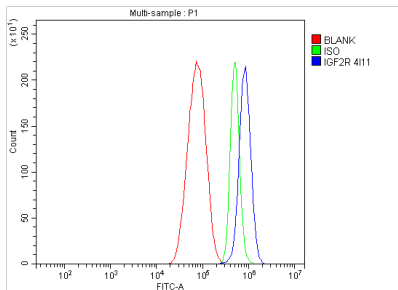


Figure 5. Flow Cytometry analysis of HepG2 cells using anti-IGF2R antibody (M00951-1).

Overlay histogram showing HepG2 cells stained with M00951-1 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-IGF2R Antibody (M00951-1, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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