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

Catalog # ABO15056

## Product Information

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| **Application** | WB, IHC, IF, ICC, FC |
| **Primary Accession** | P11717 |
| **Host** | Mouse |
| **Isotype** | Mouse IgG2a |
| **Reactivity** | Human |
| **Clonality** | Monoclonal |
| **Format** | Lyophilized |
| **Description** | Anti-IGF2R Antibody Picoband™ (monoclonal, 4I11) . Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human. |
| **Reconstitution** | Add 0.2ml of distilled water will yield a concentration of 500ug/ml. |

## Additional Information

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| **Gene ID** | 3482 |
| **Other Names** | Cation-independent mannose-6-phosphate receptor, CI Man-6-P receptor, CI-MPR, M6PR, 300 kDa mannose 6-phosphate receptor, MPR 300, Insulin-like growth factor 2 receptor, Insulin-like growth factor II receptor, IGF-II receptor, M6P/IGF2 receptor, M6P/IGF2R, CD222, IGF2R, MPRI |
| **Calculated MW** | 274375 |
| **Application Details** | Western blot, 0.25-0.5 □g/ml, Human<br>Immunohistochemistry (Paraffin-embedded Section), 2-5 □g/ml, Human<br>Immunocytochemistry/Immunofluorescence, 5 □g/ml, Human<br>Flow Cytometry, 1-3 □g/1x10^6 cells, Human |
| **Source** | Eukaryota |
| **Contents** | Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4. |
| **Clone Names** | Clone: 4I11 |
| **Immunogen** | E. coli-derived human IGF2R recombinant protein (Position: F424-R529). |
| **Purification** | Immunogen affinity purified. |
| **Storage** | 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. |

## Protein Information

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| **Name** | IGF2R |
| **Synonyms** | MPRI |
| **Function** | Mediates the transport of phosphorylated lysosomal enzymes from the Golgi complex and the cell surface to lysosomes (PubMed:18817523, PubMed:2963003). Lysosomal enzymes bearing phosphomannosyl residues bind specifically to mannose-6-phosphate receptors in the Golgi apparatus and the resulting receptor-ligand complex is transported to an acidic prelysosomal compartment where the low pH mediates the dissociation of the complex (PubMed:18817523, PubMed:2963003). The receptor is then recycled back to the Golgi for another round of trafficking through its binding to the retromer (PubMed:18817523). This receptor also binds IGF2 (PubMed:18046459). Acts as a positive regulator of T-cell coactivation by binding DPP4 (PubMed:10900005). |
| **Cellular Location** | Golgi apparatus membrane; Single-pass type I membrane protein. Endosome membrane; Single-pass type I membrane protein. Note=Mainly localized in the Golgi at steady state and not detectable in lysosome (PubMed:18817523) Colocalized with DPP4 in internalized cytoplasmic vesicles adjacent to the cell surface (PubMed:10900005). |

## Background

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.

## Images

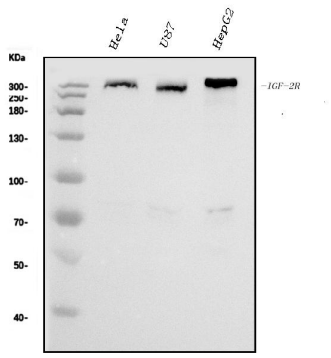



Figure 1. Western blot analysis of IGF2R using anti-IGF2R antibody (M00951-1).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.
The sample well of each lane was loaded with 30ug of sample under reducing conditions.
Lane 1: human Hela whole 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 µg/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.

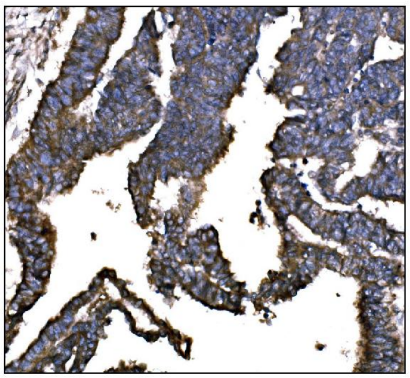


Figure 2. IHC analysis of IGF2R using anti-IGF2R antibody (M00951-1).
IGF2R was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

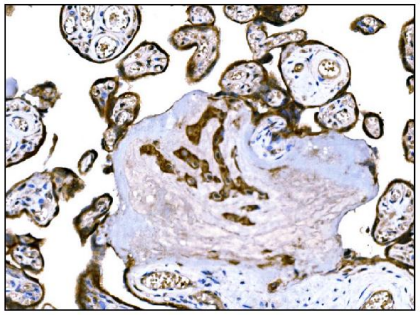


Figure 3. IHC analysis of IGF2R using anti-IGF2R antibody (M00951-1).
IGF2R was detected in paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

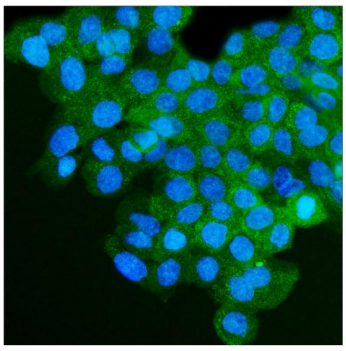


Figure 4. IF analysis of IGF2R using anti-IGF2R antibody (M00951-1).
IGF2R was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 µg/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.

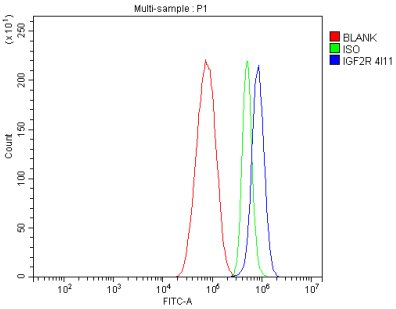



Figure 5. Flow Cytometry analysis of HepG2 cells using anti-IGF2R antibody (M00951-1).
Overlay histogram showing HepG2 cells stained with M00951-1 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-IGF2R Antibody (M00951-1, 1 µg/1x$10^6$ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x$10^6$ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x$10^6$) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.