

IGF2 Monoclonal Antibody (8H1)

Catalog Number

MA5-17096

Product data sheet

| Details | | Species Reactivity | |
|--------------------|--|--|--------------------------|
| Size | 100 µg | Species reactivity | Human, Mouse, Rat |
| Host/Isotope | Mouse / IgG1 | Published species | Human, Not Applicable |
| Class | Monoclonal | Tested Applications | |
| Type | Antibody | ELISA (ELISA) | Dilution * 1:10,000 |
| Clone | 8H1 | Flow Cytometry (Flow) | 1:200-1:400 |
| Immunogen | Purified recombinant fragment of human IGF2 (amino acids: 25-180) expressed in E. Coli. | Immunohistochemistry (Paraffin) (IHC (P)) | 1:200-1:1,000 |
| Conjugate | Unconjugated | Western Blot (WB) | 1:500-1:2,000 |
| Form | Liquid | Immunocytochemistry (ICC/IF) | 1:200-1:1,000 |
| Concentration | 1 mg/mL | Published Applications | |
| Purification | Protein G | Western Blot (WB) | See 2 publications below |
| Storage buffer | PBS | Immunohistochemistry (IHC) | See 1 publications below |
| Contains | 0.05% sodium azide | * Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls. | |
| Storage Conditions | Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles. | | |

Product specific information

MA5-17096 targets IGF2 in indirect ELISA, FACS, ICC, IHC, IF and WB applications and shows reactivity with Human samples. The MA5-17096 immunogen is purified recombinant fragment of human IGF2 (amino acids: 25-180) expressed in E. Coli. MA5-17096 detects IGF2 which has a predicted molecular weight of approximately 20.1kDa.

Background/Target Information

The IGFs are mitogenic, polypeptide growth factors that stimulate the proliferation and survival of various cell types, including muscle, bone, and cartilage tissue in vitro. IGFs are predominantly produced by the liver, although a variety of tissues produce the IGFs at distinctive times. The IGFs belong to the Insulin gene family, which also contains insulin and relaxin. The IGFs are similar to insulin by structure and function, but have a much higher growth-promoting activity than insulin. IGF-II expression is influenced by placenta lactogen, while IGF-I expression is regulated by growth hormone. Both IGF-I and IGF-II signal through the tyrosine kinase type I receptor (IGF-IR), but IGF-II can also signal through the IGF-II/Mannose-6-phosphate receptor. Mature IGFs are generated by proteolytic processing of inactive precursor proteins, which contain N-terminal and C-terminal propeptide regions.

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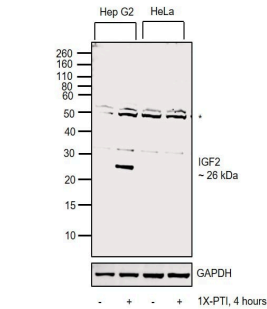
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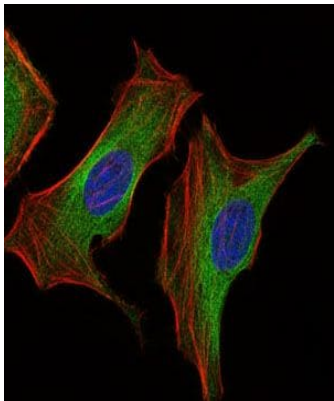
IGF2 Antibody (MA5-17096) in WB

Western blot was performed using Anti-IGF2 Monoclonal Antibody (8H1) (Product # MA5-17096) and a 26 kDa band corresponding to IGF2 was observed in Hep G2 (positive model) treated with PTI and not in PTI-treated HeLa (negative model). Whole cell extracts (30 µg lysate) of Hep G2 (Lane 1), Hep G2 treated with 1X-PTI for 4 hours (Lane 2), HeLa (Lane 3) and HeLa treated with 1X-PTI for 4 hours (Lane 4) were electrophoresed using NuPAGE™ 12% Bis-Tris Protein Gel (Product # NP0342BOX). Resolved proteins were then transferred onto a Nitrocellulose membrane (Product # IB23002) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1:1000 dilution) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1:4000) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005). Uncharacterized bands (*) were observed around 50-55 kDa.



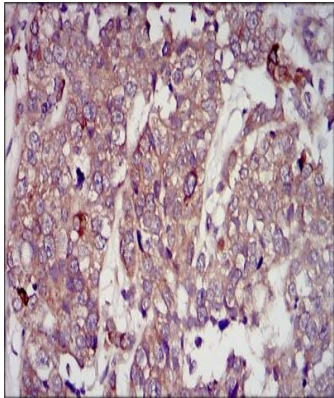
IGF2 Antibody (MA5-17096) in ICC/IF

Immunofluorescence analysis of HeLa cells using IGF2 monoclonal antibody (Product # MA5-17096) (Green). Blue: DRAQ5 fluorescent DNA dye. Red: actin filaments have been labeled with phalloidin.



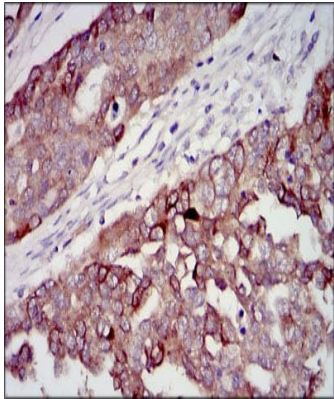
IGF2 Antibody (MA5-17096) in IHC (P)

Immunohistochemical analysis of paraffin-embedded bladder cancer tissues using IGF2 monoclonal antibody (Product # MA5-17096) followed with DAB staining.



IGF2 Antibody (MA5-17096) in IHC (P)

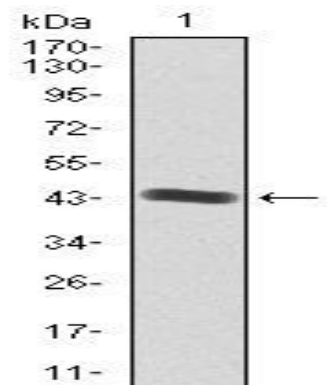
Immunohistochemical analysis of paraffin-embedded ovarian cancer tissues using IGF2 monoclonal antibody (Product # MA5-17096) followed with DAB staining.



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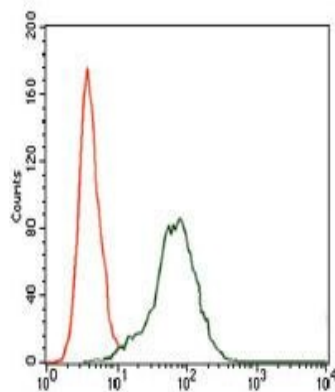
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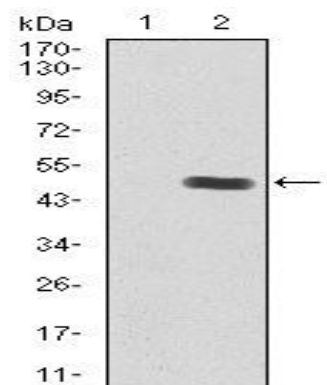
IGF2 Antibody (MA5-17096) in WB

Western blot analysis of IGF2 using a IGF2 monoclonal antibody (Product # MA5-17096) against a human IGF2 recombinant protein.



IGF2 Antibody (MA5-17096) in Flow

Flow cytometric analysis of HepG2 cells using IGF2 monoclonal antibody (Product # MA5-17096) (green) and negative control (red).



IGF2 Antibody (MA5-17096) in WB

Western blot analysis of IGF2 using IGF2 monoclonal antibody (Product # MA5-17096) in HEK293 (1) and IGF2 (AA: 25-180) human IgG Fc transfected HEK293 (2) cell lysate.

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PubMed References For IGF2 Monoclonal Antibody (8H1)

2 Western Blot References

| Species / Dilution | Summary |
|--------------------|---|
| Human / Not Cited | MA5-17096 was used in Western Blotting to report that the histone H3K27 methyltransferase polycomb repressor complex 2 (PRC2) is often heterogeneous within individual SHH medulloblastoma tumors. Cancer research (2022; 82: 2874) "PRC2 Heterogeneity Drives Tumor Growth in Medulloblastoma." Author(s):Yi J,Kim B,Shi X,Zhan X,Lu QR,Xuan Z,Wu J PubMed Article URL: http://dx.doi.org/10.1158/0008-5472.CAN-21-4313 |
| Human / 1:1000 | MA5-17096 was used in Western Blotting to discover whether miRNAs dysregulated in meningioma, and explore miRNA-associated pathways amenable for therapeutic interventions. Journal of neuro-oncology (2023; 162: 109) "Inhibition of the epigenetically activated miR-483-5p/IGF-2 pathway results in rapid loss of meningioma tumor cell viability." Author(s):Uhlmann EJ,Mackel CE,Deforz E,Rabinovsky R,Brastianos PK,Varma H,Vega RA,Krichevsky AM PubMed Article URL: http://dx.doi.org/10.1007/s11060-023-04264-z |

1 Immunohistochemistry References

| Species / Dilution | Summary |
|--------------------|---|
| Human / Not Cited | MA5-17096 was used in Immunohistochemistry to present two cases of NICH with different outcomes. Frontiers in endocrinology (2020; 10:) "Non-islet Cell Hypoglycemia: Case Series and Review of the Literature." Author(s):Garla V,Sonani H,Palabindala V,Gomez-Sanchez C,Subauste J,Lien LF PubMed Article URL: http://dx.doi.org/10.3389/fendo.2019.00316 |

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