

**Anti-IGF-1 Antibody**  
**Catalog # ABO10699****Specification**

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**Anti-IGF-1 Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P05019</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Insulin-like growth factor I(IGF1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-IGF-1 Antibody - Additional Information**

**Gene ID** 3479

**Other Names**

Insulin-like growth factor I, IGF-I, Mechano growth factor, MGF, Somatomedin-C, IGF1, IBP1

**Calculated MW**

21841 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat  
Western blot, 0.1-0.5 µg/ml, Human

**Subcellular Localization**

Secreted.

**Protein Name**

Insulin-like growth factor I(IGF-I)

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg Na<sub>3</sub>N.

**Immunogen**

A synthetic peptide corresponding to a sequence in the middle region of human IGF-1(80-96 aa GSSRRAPQTGIVDECC), different from the mouse and rat sequences by one amino acid.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

Storage

**At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.**

#### Sequence Similarities

Belongs to the insulin family.

### Anti-IGF-1 Antibody - Protein Information

**Name** IGF1 ([HGNC:5464](#))

#### Function

The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity. May be a physiological regulator of [1-14C]- 2-deoxy-D-glucose (2DG) transport and glycogen synthesis in osteoblasts. Stimulates glucose transport in bone-derived osteoblastic (PyMS) cells and is effective at much lower concentrations than insulin, not only regarding glycogen and DNA synthesis but also with regard to enhancing glucose uptake. May play a role in synapse maturation (PubMed:<a href="http://www.uniprot.org/citations/21076856" target="\_blank">21076856</a>, PubMed:<a href="http://www.uniprot.org/citations/24132240" target="\_blank">24132240</a>). Ca(2+)-dependent exocytosis of IGF1 is required for sensory perception of smell in the olfactory bulb (By similarity). Acts as a ligand for IGF1R. Binds to the alpha subunit of IGF1R, leading to the activation of the intrinsic tyrosine kinase activity which autophosphorylates tyrosine residues in the beta subunit thus initiating a cascade of down-stream signaling events leading to activation of the PI3K-AKT/PKB and the Ras-MAPK pathways. Binds to integrins ITGAV:ITGB3 and ITGA6:ITGB4. Its binding to integrins and subsequent ternary complex formation with integrins and IGFR1 are essential for IGF1 signaling. Induces the phosphorylation and activation of IGFR1, MAPK3/ERK1, MAPK1/ERK2 and AKT1 (PubMed:<a href="http://www.uniprot.org/citations/19578119" target="\_blank">19578119</a>, PubMed:<a href="http://www.uniprot.org/citations/22351760" target="\_blank">22351760</a>, PubMed:<a href="http://www.uniprot.org/citations/23243309" target="\_blank">23243309</a>, PubMed:<a href="http://www.uniprot.org/citations/23696648" target="\_blank">23696648</a>). As part of the MAPK/ERK signaling pathway, acts as a negative regulator of apoptosis in cardiomyocytes via promotion of STUB1/CHIP-mediated ubiquitination and degradation of ICER-type isoforms of CREM (By similarity).

#### Cellular Location

Secreted {ECO:0000250|UniProtKB:P05017}.

### Anti-IGF-1 Antibody - Protocols

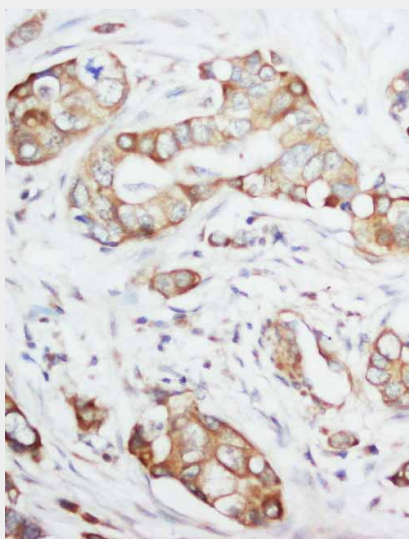
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-IGF-1 Antibody - Images



Anti-IGF-1 antibody, ABO10699, Western blottingWB: Recombinant Human IGF-1 Protein 2.5ng



Anti-IGF-1 antibody, ABO10699, IHC(P)IHC(P): Human Mammary Cancer Tissue

## Anti-IGF-1 Antibody - Background

Insulin-like growth factor 1(IGF-1) also known as somatomedin C or mechano growth factor is a protein that in humans is encoded by the IGF1 gene. IGF-1 is a hormone similar in molecular structure to insulin. It plays an important role in childhood growth and continues to have anabolic effects in adults. A synthetic analog of IGF-1, mecasermin is used for the treatment of growth failure. IGF-1 consists of 70 amino acids in a single chain with three intramolecular disulfide bridges. IGF-1 has a molecular weight of 7649 daltons. Justice et al.(1990) placed the mouse IGF1 gene on chromosome 10.