

**IGF1 Antibody (C-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP14099b****Specification**

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**IGF1 Antibody (C-term) Blocking peptide - Product Information**Primary Accession [P05019](#)**IGF1 Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 3479**Other Names**

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

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody AP14099b was selected from the C-term region of IGF1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**IGF1 Antibody (C-term) Blocking peptide - Protein Information****Name** IGF1**Synonyms** IBP1**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/23696648" target="\_blank">23696648</a>, PubMed:<a href="http://www.uniprot.org/citations/23243309" target="\_blank">23243309</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}.

### IGF1 Antibody (C-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

### IGF1 Antibody (C-term) Blocking peptide - Images

### IGF1 Antibody (C-term) Blocking peptide - Background

The protein encoded by this gene is similar to insulin in function and structure and is a member of a family of proteins involved in mediating growth and development. The encoded protein is processed from a precursor, bound by a specific receptor, and secreted. Defects in this gene are a cause of insulin-like growth factor I deficiency. Several transcript variants encoding different isoforms have been found for this gene.

### IGF1 Antibody (C-term) Blocking peptide - References

Li, M., et al. J. Biol. Chem. 285(40):30480-30488(2010) Canzian, F., et al. Hum. Mol. Genet. 19(19):3873-3884(2010) Romero, R., et al. Am. J. Obstet. Gynecol. 203 (4), 361 (2010) :Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Szczesny, G., et al. Arch Orthop Trauma Surg (2010) In press :