10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

IGF1 Antibody (C-term) Blocking Peptide

Synthetic peptide

Catalog # BP13212b

Specification

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 AP13212b 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

IGF1 Antibody (C-term) Blocking Peptide - Background

The protein encoded by this gene is similar to insulin infunction and structure and is a member of a family of proteinsinvolved in mediating growth and development. The encoded proteinis processed from a precursor, bound by a specific receptor, andsecreted. Defects in this gene are a cause of insulin-like growthfactor I deficiency. Several transcript variants encoding differentisoforms 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 :

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:21076856, PubMed:24132240). 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 initiatiating 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:19578119, PubMed:22351760, PubMed:23696648, PubMed:23243309).

Cellular Location
Secreted {ECO:0000250|UniProtKB:P05017}.

IGF1 Antibody (C-term) Blocking Peptide - Protocols

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

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

- Blocking Peptides