

IGF1 alpha Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP7827b**Specification****IGF1 alpha Antibody (C-term) Blocking peptide - Product Information**Primary Accession [P05019](#)
Other Accession [P01343](#)**IGF1 alpha 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 [AP7827b](#) was selected from the C-term region of human 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 alpha Antibody (C-term) Blocking peptide - Protein Information

Name IGF1

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

The somatomedins, or insulin-like growth factors (IGFs), comprise a family of peptides that play important roles in mammalian growth and development. IGF1 mediates many of the growth-promoting effects of growth hormone (GH; MIM 139250). Early studies showed that growth hormone did not directly stimulate the incorporation of sulfate into cartilage, but rather acted through a serum factor, termed 'sulfation factor,' which later became known as 'somatomedin' (Daughaday et al., 1972 [PubMed 4550398]). Three main somatomedins have been characterized: somatomedin C (IGF1), somatomedin A (IGF2; MIM 147470), and somatomedin B (MIM 193190) (Rotwein, 1986 [PubMed 3455760]; Rosenfeld, 2003 [PubMed 14657423]).[supplied by OMIM]

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

Berensztejn,E.B., *Pediatr. Res.* 63 (6), 662-666 (2008)Siddappa,R., *Proc. Natl. Acad. Sci. U.S.A.* 105 (20), 7281-7286 (2008)Duijts,L., (er) *Clin. Endocrinol. (Oxf)* (2008)

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: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 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:19578119, PubMed:22351760, PubMed:23696648, PubMed:23243309).

Cellular Location

Secreted
{ECO:0000250|UniProtKB:P05017}.

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

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

- [Blocking Peptides](#)