10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

IGF1 Antibody
Rabbit mAb
Catalog # AP90449

Specification

IGF1 Antibody - Product Information

Application	**WB**
Primary Accession	P05019
Clonality	**Monoclonal**

Other Names
IGF1;IGF1A;IGFI; MGF; Somatomedin C; Insulin like growth factor 1;

Isotype	**Rabbit IgG**
Host	**Rabbit**
Calculated MW	**21841 Da**

IGF1 Antibody - Additional Information

Dilution	**WB~~1:1000**
Purification	**Affinity-chromatography**
Immunogen	**A synthesized peptide derived from human IGF1**
Description	**IGF1, also named as IBP1, MGF, IGF-IA and Somatomedin-C, belongs to the insulin family. IGF1 is structurally and functionally related to insulin but have a much higher growth-promoting activity. Altered expression or mutation of IGF-1 is associated with several human disorders, including type I diabetes and various forms of cancer.**
Storage Condition and Buffer	**Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.**

IGF1 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:21076856, PubMed:<a

href="http://www.uniprot.org/citations/24132240" target="_blank">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:23243309, PubMed:23696648). 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).

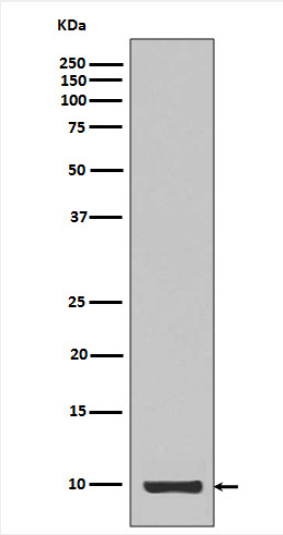
Cellular Location
Secreted {ECO:0000250|UniProtKB:P05017}.

IGF1 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

IGF1 Antibody - Images



Western blot analysis of Calreticulin expression in IGF1 recombinant protein.