

IGF1 Antibody

Rabbit mAb

Catalog # AP90449

Product Information

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|--------------------------|--|
| Application | WB |
| Primary Accession | P05019 |
| Reactivity | Human |
| Clonality | Monoclonal |
| Other Names | IGF1;IGF1A;IGFI; MGF; Somatomedin C; Insulin like growth factor 1; |
| Isotype | Rabbit IgG |
| Host | Rabbit |
| Calculated MW | 21841 |

Additional Information

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|-------------------------------------|---|
| Dilution | WB 1:500~1:2000 |
| 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. |

Protein Information

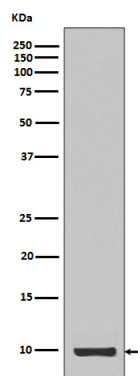
| | |
|-----------------|---|
| Name | IGF1 (HGNC:5464) |
| Function | The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity. May be a physiological regulator of [1-14C]- 2-deoxy-D-glucose (2DG) transport 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: 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}.

Images



Western blot analysis of Calreticulin expression in IGF1 recombinant protein.

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