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Polyclonal Antibody to Insulin Like Growth Factor 1 (IGF1)

Insulin Like Growth Factor 1
Catalog # AP74501

Product Information

Application	WB
Primary Accession	P16545
Reactivity	Pig
Host	Rabbit
Clonality	Polyclonal
Calculated MW	17010

Additional Information

Gene ID	397491
Other Names	IGFI; IGF1A; IBP1; MGF; Somatomedin C; Mechano Growth Gactor
Target/Specificity	Sus scrofa; Porcine (Pig)
Dilution	WB~~Western blotting: 0.5-2 □g/mL; Immunohistochemistry: 5-20 □g/mL; Immunocytochemistry: 5-20 □g/mL; Optimal working dilutions must be determined by end user.
Format	PBS, pH7.4, containing 0.02% NaN3, 50% glycerol.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	IGF1 {ECO:0000250|UniProtKB:P05019}
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. Ca(2+)-dependent exocytosis of IGF1 is required for sensory perception of smell in the olfactory bulb. 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 (By similarity). 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

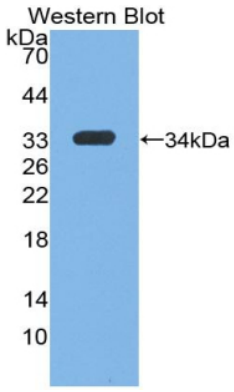


Figure. Western Blot; Sample: Recombinant IGF1, Porcine.

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