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IGF1 Antibody (internal region)

Peptide-affinity purified goat antibody
Catalog # AF3332a

Specification

IGF1 Antibody (internal region) - Product Information

Application	**WB, E**
Primary Accession	P05019
Other Accession	NP_001104753.1, NP_001104754.1, NP_001104755.1, NP_000609.1, 3479, 16000 (mouse), 24482 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat, Rabbit, Pig, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**21841**

IGF1 Antibody (internal region) - Additional Information

Gene ID 3479

Other Names
Insulin-like growth factor I, IGF-I, Mechano growth factor, MGF, Somatomedin-C, IGF1, IBP1

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
IGF1 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

IGF1 Antibody (internal region) - 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}.

IGF1 Antibody (internal region) - 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 (internal region) - Images

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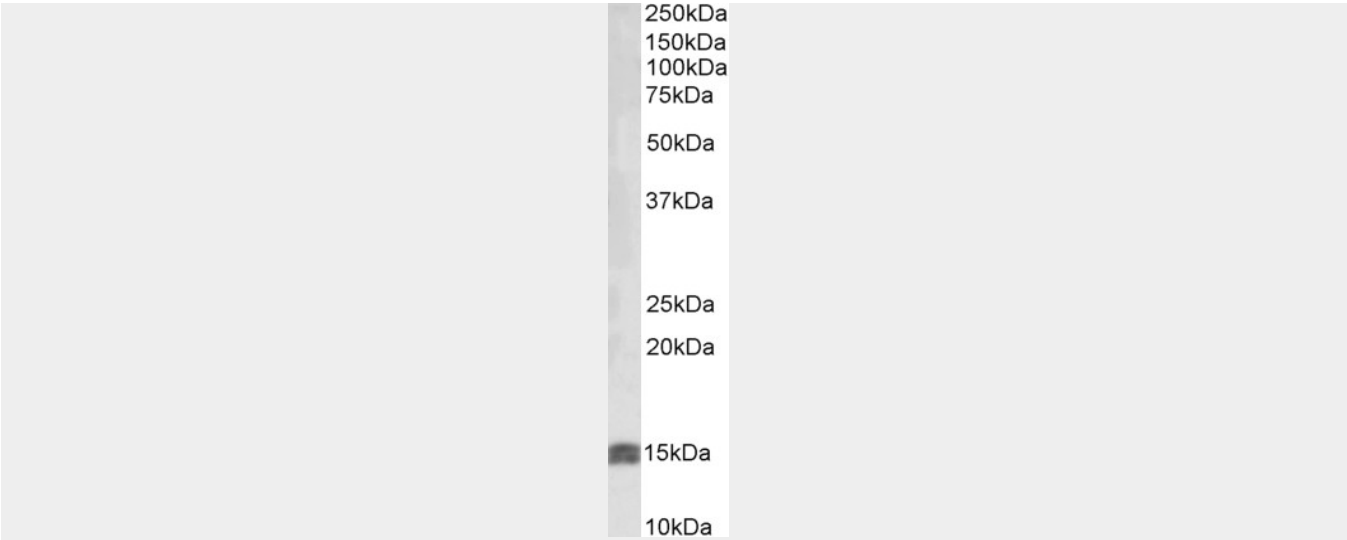

AF3332a (0.5 µg/ml) staining of Human Uterus lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

IGF1 Antibody (internal region) - Background

This antibody is expected to recognize all reported isoforms (NP_001104753.1; NP_001104754.1; NP_001104755.1; NP_000609.1).

IGF1 Antibody (internal region) - References

IGF-1 increases macrophage motility via PKC/p38-dependent alphavbeta3-integrin inside-out signaling. Furundzija V, Fritzsche J, Kaufmann J, Meyborg H, Fleck E, Kappert K, Stawowy P, Biochemical and biophysical research communications 2010 Apr 394 (3): 786-91. PMID: 20230795