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Anti-IGF-1 Reference Antibody (xentuzumab)

Recombinant Antibody
Catalog # APR10184

Specification

Anti-IGF-1 Reference Antibody (xentuzumab) - Product Information

Application	**FC, E, FTA**
Primary Accession	P05019
Reactivity	**Rat, Cynomolgus, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**143.7 KDa**

Anti-IGF-1 Reference Antibody (xentuzumab) - Additional Information

Target/Specificity
IGF-1

Endotoxin
< 0.001EU/ μg,determined by LAL method.

Conjugation
Unconjugated

Expression system
CHO Cell

Format
Purified monoclonal antibody supplied in PBS, pH6.0, without preservative.This antibody is purified through a protein A column.

Anti-IGF-1 Reference Antibody (xentuzumab) - 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).

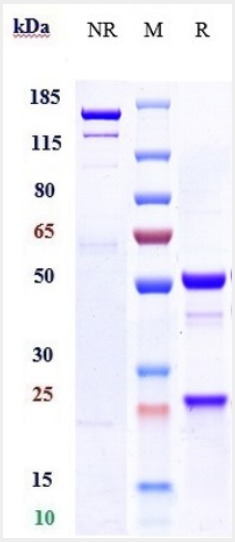
Cellular Location
Secreted {ECO:0000250|UniProtKB:P05017}.

Anti-IGF-1 Reference Antibody (xentuzumab) - Protocols

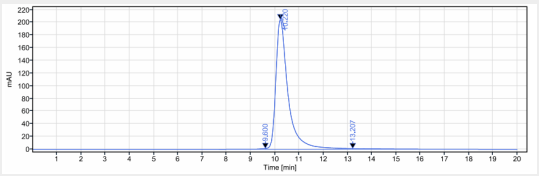
Provided below are standard protocols that you may find useful for product applications.

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

Anti-IGF-1 Reference Antibody (xentuzumab) - Images



Anti-IGF-1 Reference Antibody (xentuzumab) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95.3%



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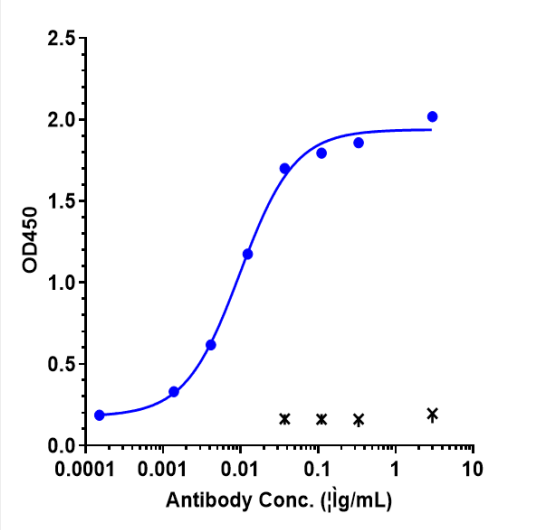
The purity of Anti-IGF-1 Reference Antibody (xentuzumab)is more than 98.72% ,determined by SEC-HPLC.



Immobilized human IGF I Protein, His Tag at 2 μg/mL can bind Anti-IGF-1 Reference Antibody (xentuzumab)EC50=0.009806 μg/mL