

Recombinant Guinea pig Igf1 Protein, His-tagged, OVA Conjugated

Cat. No. Igf1-2817G **Lot. No.** (See product label)

SPECIFICATION

Product Overview OVA Conjugated Recombinant Guinea pig Igf1 Protein () fused with a N-His tag.


Species Guinea pig

Source Synthetic

Description

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. Ca²⁺-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 ITGA5: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

Form Freeze-dried powder

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Molecular Mass	Predicted Molecular Mass: 1708.9 Da
Purity	> 97%
Applications	Immunogen; SDS-PAGE; WB.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
Storage Buffer	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Reconstitution	Reconstitute in PBS or others.
Conjugation	OVA

GENE INFORMATION

Gene Name	lgf1 insulin-like growth factor 1 [Cavia porcellus]
Official Symbol	lgf1
Synonyms	IGF1; insulin-like growth factor 1; insulin-like growth factor I; IGF-I; somatomedin;
Gene ID	100135551
mRNA Refseq	NM_001172966

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Protein Refseq NP_001166437

UniProt ID P17647

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