

Active Recombinant Human IGF1 protein, His-tagged

Cat. No. IGF1-4120H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human IGF1 protein(P05019)(49~118 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	49-118 aa
Form	Lyophilized from sterile 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Bio-activity	Insulin-like growth factor 1 (IGF1), also called somatomedin C is a hormone similar in molecular structure to insulin. It plays an important role in childhood growth and continues to have anabolic effects in adults. A synthetic analog of IGF1, mecasermin, is used for the treatment of growth failure. IGF1 consists of 70 amino acids in a single chain with three intramolecular disulfide bridges. IGF1 has a molecular weight of 7,649 Daltons. Besides, Insulin Like Growth Factor Binding Protein 4 (IGFBP4) has been identified as an interactor of IGF1, thus a binding ELISA assay was conducted to detect the interaction of recombinant human IGF1 and recombinant human IGFBP4. Briefly, IGF1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100μ were then transferred to IGFBP4-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-VDR pAb, then aspirated and washed 3 times. After incubation with HRP

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labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µ stop solution to the wells and read at 450nm immediately. The binding activity of IGF1 and IGFBP4 was shown, and this effect was in a dose dependent manner.

Molecular Mass	37.7kDa
Purity	> 95% as determined by SDS-PAGE.
Storage	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	IGF1 insulin-like growth factor 1 (somatomedin C) [Homo sapiens]
Official Symbol	IGF1
Synonyms	IGF1; insulin-like growth factor 1 (somatomedin C); insulin-like growth factor 1; IGF1A; MGF; IGF-IA; IGF-IB; somatomedin-C; mechano growth factor; insulin-like growth factor I; insulin-like growth factor IA; insulin-like growth factor IB; IGFI; IGF-I;
Gene ID	3479
mRNA Refseq	NM_000618
Protein Refseq	NP_000609

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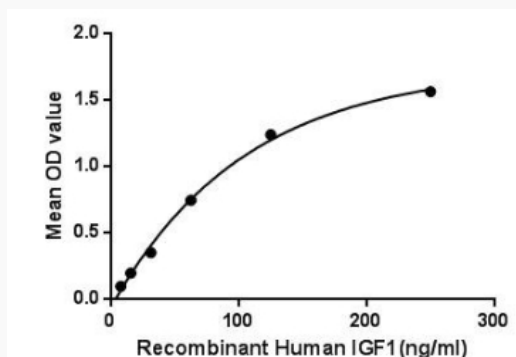
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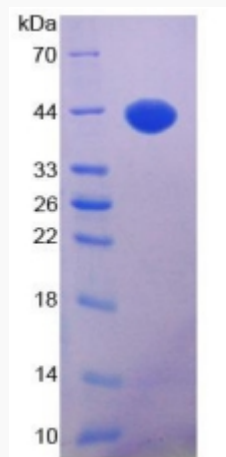
MIM 147440

UniProt ID P05019

Activity



SDS-PAGE



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