Active Recombinant Human IGF2 protein, His-tagged

Cat. No. IGF2-2279H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human IGF2 protein(p01344)(25~91 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	25-91 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	Insulin-like Growth Factor 2 (IGF2) is a mitogenic peptide hormone critical for fetal growth and development, predominantly synthesized by the liver and placenta. It mediates signaling through the IGF1 receptor (IGF1R) and insulin receptor isoform A (IR-A) to govern cell proliferation, differentiation, and metabolic processes. Dysregulated IGF2 expression is associated with oncogenesis and overgrowth disorders such as Beckwith-Wiedemann syndrome. IGF2 exhibits high-affinity binding to Insulin-like Growth Factor Binding Protein 5 (IGFBP5), which dynamically modulates IGF2 bioactivity by either enhancing receptor engagement or restricting ligand-receptor interaction, contingent on the cellular microenvironment.Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human IGF2 and recombinant rat IGFBP5 .Briefly, biotin-linked IGF2 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µl

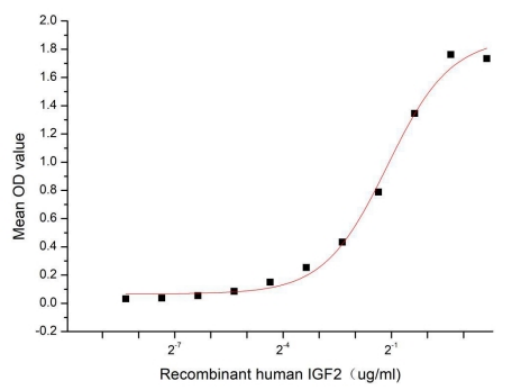
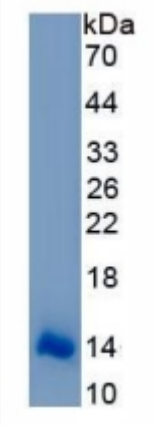
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	were then transferred to IGFBP5-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µstop solution to the wells and read at 450nm immediately. The binding activity of IGF2 and IGFBP5 was shown, the EC50 for this effect is 0.46ug/mL.
Molecular Mass	11.2kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 90% 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	IGF2 insulin-like growth factor 2 (somatomedin A) [Homo sapiens]
Official Symbol	IGF2
Synonyms	IGF2; insulin-like growth factor 2 (somatomedin A); C11orf43, chromosome 11 open reading frame 43; insulin-like growth factor II; FLJ44734; somatomedin-A; insulin-like growth factor type 2; IGF-II; PP9974; C11orf43; FLJ22066;
Gene ID	3481

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mRNA Refseq	NM_000612
Protein Refseq	NP_000603
UniProt ID	P01344
Activity	
SDS-PAGE	

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