

## GFH34 Recombinant Human IGF-1

### Description

Insulin-like Growth Factor 1 (IGF-1) is a growth factor that is produced by the liver. IGF-1 production is stimulated by Growth Hormone. IGF-1 binds the insulin-like growth factor 1 receptor (IGF1R) and the insulin receptor to stimulate systemic body growth. IGF-1 is one of the most potent activators of the AKT signaling pathway, which stimulates cell proliferation and inhibits programmed cell death. Mature human IGF-1 is 100% homologous to bovine and porcine IGF-1 proteins.

<b>Length</b>	70 aa
<b>Molecular Weight</b>	7.7 kDa
<b>Source</b>	E. coli
<b>Accession Number</b>	P05019
<b>Purity</b>	≥95% determined by reducing and non-reducing SDS-PAGE

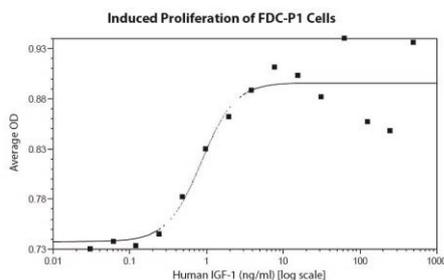
### Specifications

<b>Alternative Names</b>	Insulin-like Growth Factor 1, somatomedin C, mechano growth factor, IGF-IA, IGF-IB, IGF-I, IGFI, insulin-like growth factor I, IGF1A1, insulin-like growth factor IA, insulin-like growth factor IB, MGF2, IBP1
<b>Biological Activity</b>	Human IGF-1 is fully biologically active when compared to standard. The activity is determined by the ability to induce FDC-P1 cells proliferation and it is typically less than 10 ng/ml. This corresponds to an expected specific activity of $1.0 \times 10^5$ units/mg.
<b>Endotoxin Level</b>	≤1.00 EU/μg as measured by kinetic LAL
<b>Formulation</b>	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)
<b>AA Sequence</b>	GPETLCGAEL VDALQFVCGD RGFYFNKPTG YGSSSRRAPO TGIVDECCFR SCDLRRLEMY CAPLKPAKSA

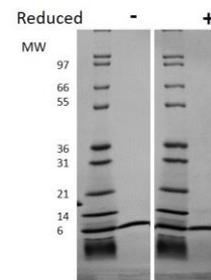
### Preparation and Storage

<b>Reconstitution</b>	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at 0.1 mg/ml, which can be further diluted into other aqueous solutions.
<b>Stability and Storage</b>	12 months from date of receipt when stored at -20°C to -80°C as supplied. 1 month when stored at 4°C after reconstituting as directed. 3 months when stored at -20°C to -80°C after reconstituting as directed.

### Data



Induced proliferation of FDC-P1 cells assay for Human IGF-1. Cell proliferation was measured to calculate the ED50, which is as expected less than 10 ng/ml.



Non-reducing (-) and reducing (+) conditions in a 4 - 20% Tris-Glycine gel stained with Coomassie Blue. 1 μg of protein was loaded in each lane. Human IGF-1 has a predicted Mw of 7.7 kDa.