GFH34AF Recombinant Human IGF-1 (Animal-Free)

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.

This product is produced with no animal derived raw products. All processing and handling employs animal free equipment and animal free protocols.

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

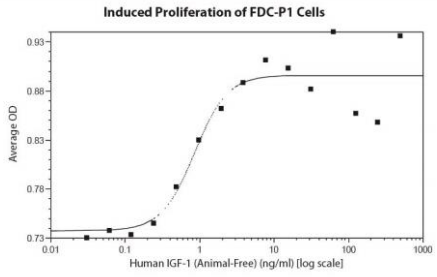
Specifications

Alternative Names	Insulin-like Growth Factor 1, somatamedin 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
Biological Activity	Human IGF-1 (Animal-Free) 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 x 10^5 units/mg.
Endotoxin Level	≤1.00 EU/µg as measured by kinetic LAL
Formulation	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)
AA Sequence	GPETLCGAEL VDALQFVCGD RGFYFNKPTG YGSSSRRAPQ TGIVDECCFR SCDLRRLEMY CAPLKPAKSA

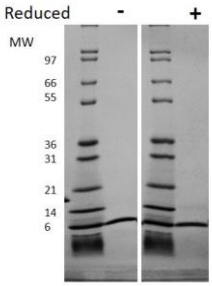
Preparation and Storage

Reconstitution	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.
Stability and Storage	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.