

**Datasheet for 009-001-V21-0020****rHuman IGF-I Protein****Overview**

<b>Description:</b>	Human Insulin-like Growth Factor I Recombinant Protein - 009-001-V21-0020
<b>Item No.:</b>	009-001-V21-0020
<b>Size:</b>	20 µg
<b>Applications:</b>	SDS-PAGE, Cellular Assay
<b>Origin:</b>	Human
<b>Expressed in:</b>	E. coli

**Product Details**

<b>Background:</b>	Insulin-like Growth Factor I, IGF-I, is a growth factor produced by the liver when stimulated with growth hormone and can be found circulating throughout the body. IGF-I activates the IGF-I receptor (IGF1R) and the insulin receptor to mediate growth of almost every cell of the body. IGF-I is known as one of the most potent activators of the AKT signaling pathway which is known to be a stimulator of proliferation and an inhibitor of programmed cell death. Mature human IGF-I is 100% homologous with bovine and porcine proteins. Recombinant human IGF-I is a non-glycosylated protein, containing 70 amino acids, with a molecular weight of 7.7 kDa.
<b>Synonyms:</b>	Somatamedin C, mechano growth factor (MGF), IGF-IA
<b>Species of Origin:</b>	Human
<b>Expressed in:</b>	E. coli
<b>Type:</b>	Recombinant Protein
<b>Low Endotoxin:</b>	Yes

**Target Details**

<b>Gene Name:</b>	IGF1
<b>Purity/Specificity:</b>	Insulin-like Growth Factor I purity was determined to be greater than 98% as determined by HPLC, analysis by UV-Spectroscopy at 280nm, and by reducing and non-reducing SDS-PAGE.
<b>Relevant Links:</b>	<ul style="list-style-type: none"><li>• <a href="#">UniProtKB - P05019</a></li></ul>

## Application Details

<b>Tested Applications:</b>	SDS-PAGE
<b>Suggested Applications:</b>	Cellular Assay (Based on references)
<b>Application Note:</b>	Insulin-like Growth Factor I Recombinant Protein has been tested by SDS-PAGE and biological activity and is suitable as a control for polyclonal or monoclonal anti-Insulin-like Growth Factor I in immunological assays.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>Other:</b>	Endotoxin Level: Measured by kinetic LAL analysis and is typically $\leq 1$ EU/ $\mu$ g protein. Biologic Activity: The activity is determined by the dose-dependent proliferation of mouse FDC-P1 cells is typically less than 1.0 ng/mL.

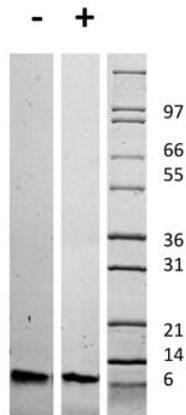
## Formulation

<b>Physical State:</b>	Lyophilized
<b>Buffer:</b>	0.1% Trifluoroacetic acid
<b>Preservative:</b>	None
<b>Stabilizer:</b>	None
<b>Reconstitution Volume:</b>	20 $\mu$ l (20-200 $\mu$ l)
<b>Reconstitution Buffer:</b>	Restore with deionized water (or equivalent)

## Shipping & Handling

<b>Shipping Condition:</b>	Ambient
<b>Storage Condition:</b>	Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.
<b>Expiration:</b>	Expiration date is six (6) months from date of receipt.

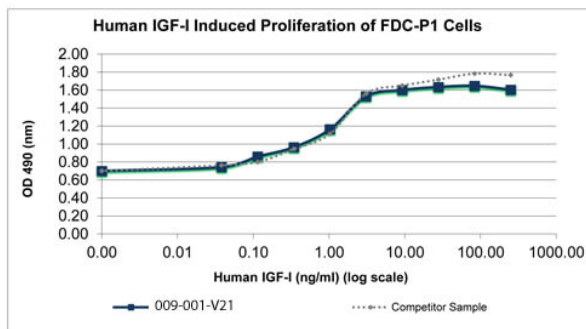
## Images


**SDS-PAGE**

SDS-PAGE of Human Insulin-like Growth Factor I Recombinant Protein. Lane 1: 1 µg Human IGF-I in non-reducing conditions (-). Lane 2: 1 µg Human IGF-I in reducing conditions (+). Lane 3: Molecular weight marker. Human IGF-I has a predicted MW of 7.6 kDa.

**SDS-PAGE**

Bioactivity of Human Insulin-like Growth Factor I Recombinant Protein. FDC-P1 cells were cultured with 0 to 250 ng/mL Human IGF-I. Cell proliferation was measured after 48 hours and the linear portion of the curve was used to calculate the ED50. The ED50 of Human IGF-I is 0.65-0.98 ng/mL. This value is comparable to the competitor sample and to the expected range of less than 1 ng/mL.



## Disclaimer

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