

# Human IGF1 Protein, Ultra Low Endotoxin



Cat. No. IGF-HM201-UL

## Description

<b>Source</b>	Recombinant Human IGF1 Protein is expressed from HEK293 with hFc (IgG1) tag at the N-Terminus. It contains Gly49-Ala118.
<b>Accession</b>	P05019-1
<b>Molecular Weight</b>	The protein has a predicted MW of 33.18 kDa. Due to glycosylation, the protein migrates to 38-43 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 0.01 EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

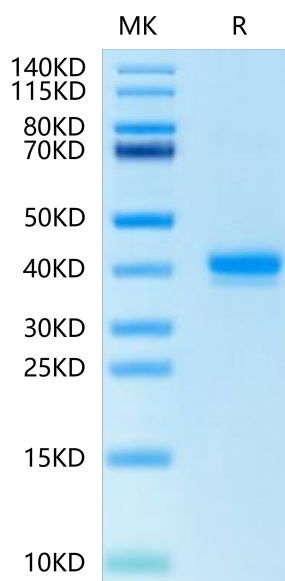
<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

The insulin family consists of insulin, insulin-like growth factor 1 (IGF-1), insulin-like growth factor 2 (IGF-2), their receptors (IR, IGF-1R and IGF-2R), and their binding proteins. Insulin-like growth factor I (IGF-I) is a polypeptide hormone produced mainly by the liver in response to the endocrine GH stimulus, but it is also secreted by multiple tissues for autocrine/paracrine purposes.

## Assay Data

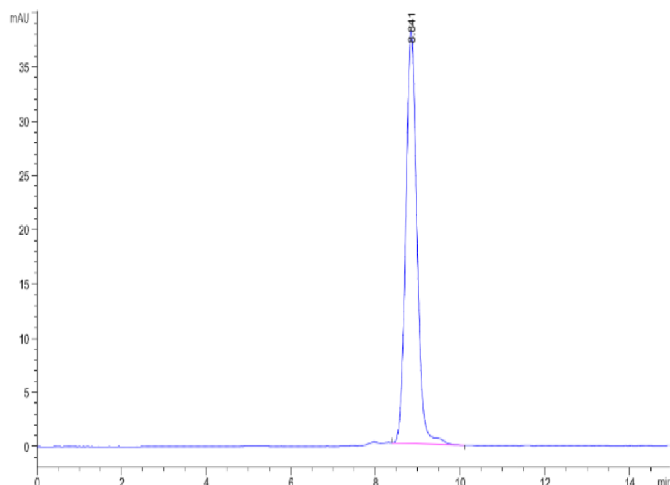
### Bis-Tris PAGE



Human IGF1 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC

Assay Data

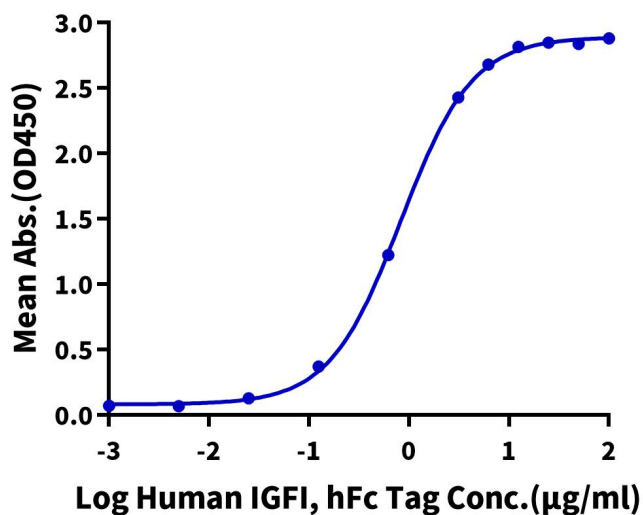


The purity of Human IGFI is greater than 95% as determined by SEC-HPLC.

ELISA Data

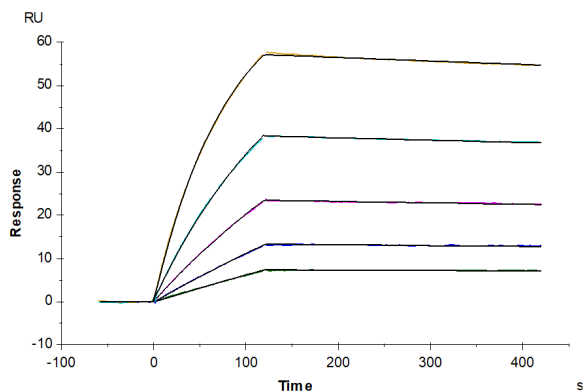
**Human IGFI, hFc Tag ELISA**

0.5µg Human IGF1R, His Tag Per Well



Immobilized Human IGF1R, His Tag at 5µg/ml (100µl/well) on the plate. Dose response curve for Human IGFI, hFc Tag with the EC50 of 0.83µg/ml determined by ELISA (QC Test).

SPR Data



Human IGFBP-3, His Tag captured on CM5 Chip via anti-his antibody can bind Human IGFI, hFc Tag with an affinity constant of 2.32 nM as determined in SPR assay (Biacore T200).