

Recombinant Human Insulin-Like Growth Factor 1 (somatomedin C)

Cat. No. IGF1-606H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant humanIGF1 contains 70 amino acids and a 13 amino acid Histidine-based tag. It has a predicted molecular mass of 9.3 kDa and migrates with an apparent MW 12 kDa in SDS-PAGE.
Species	Human
Source	Hordeum Vulgare
Description	IGF1 is a protein that in humans is encoded by the IGF1 gene. IGF1 has also been referred to as a somatotropic factor and its effects were termed nonsuppressible insulin-like activity (NSILA) in the 1970s. IGF1 is a hormone similar in molecular structure to insulin. It plays an important role in childhood growth and continues to have anabolic effects in adults. A synthetic analog of IGF1, mecasermin is used for the treatment of growth failure.
Molecular Weight	12 kDa
Form	Lyophilized from a 0.2 sterile filtered solution in 50 mM MES, pH 6.5+100 mM NaCl.
Purity	> 98% as determined by SDS-PAGE analysis
Endotoxin Level	< 0.005 ng/ug of IGF1
Biological Activity	Bioactivity is assayed by measuring the dose dependent effect of human IGF1 on

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	proliferation of FDC-P1 cells, mouse progenitor cells of granulocytes, monocytes and macrophages. The ED50 for this effect is 10.0 ng/ml.
Specific Activity	1 x 10 ⁵ U/mg
Reconstitution	Centrifuge vial prior to opening. Add sterile distilled water to the vial to fully solubilize the protein to a concentration not less than 100 ng/ml.
Storage	Store lyophilized protein at -20°C and reconstituted protein in working aliquots at -20°C with a carrier protein (0.1% HSA or BSA) as a stabilizer for long term storage. Please note that the addition of any carrier protein into this product may produce unwanted endotoxin. This depends upon the particular application employed. Avoid repeated freeze-thaw cycles.
Official Symbol	IGF1

GENE INFORMATION

Gene Name	IGF1 insulin-like growth factor1 (somatomedin C) [Homo sapiens]
Synonyms	IGF1; insulin-like growth factor 1 (somatomedin C); IGFI; IGF-I; IGF1A; insulin-like growth factor 1; MGF; IGF-IA; IGF-IB; somatomedin-C; OTTHUMP00000195080; OTTHUMP00000195081; OTTHUMP00000195082; OTTHUMP00000195083; OTTHUMP00000195084; mechano growth factor; insulin-like growth factor I; insulin-like growth factor IA; insulin-like growth factor IB
Gene ID	3479
mRNA Refseq	NM_000618
Protein Refseq	NP_000609

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MIM	147440
UniProt ID	P01343
Chromosome Location	12q22-q23
Pathway	Adipogenesis;Aldosterone-regulated sodium reabsorption; Androgen Receptor SignalingPathway; Apoptosis; Diabetes pathways; Dilated cardiomyopathy; EndochondralOssification; Focal Adhesion; Glioma; Hemostasis; Id Signaling Pathway;Long-term depression; Melanoma; MicroRNAs in cardiomyocyte hypertrophy;Oocyte meiosis
Function	growth factor activity;hormone activity; insulin receptor binding; insulin-like growth factorreceptor binding; integrin binding; protein binding
PDBrendering based on 1bqt.	