Recombinant Human Insulin-Like Growth Factor 1 Receptor

Cat. No. IGF1R-663H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant IGF1R is adisulfide-linked monomeric protein consisting of 71 amino acid residuesubunits. IGF1R migrates as an approximately 8 kDa protein under non-reducingand reducing conditions in SDS-PAGE, and was lyophilized from a 0.2 μmfiltered PBS solution, pH 7.4.
Species	Human
Source	Human
Description	IGF1R,also known as somatomedin C, is the dominant effector of growth hormone andis structurally homologous to proinsulin. Human IGF1R is synthesized as twoprecursor isoforms with N- and alternate C- terminal propeptides. Theseisoforms are differentially expressed by various tissues. The 7.6 kDa matureIGF-I is identical between isoforms and is generated by proteolytic removalof the N- and C- terminal regions. Mature human IGF1R shares 94% and 96% aasequence identity with mouse and rat IGF-I, respectively, and exhibitscross-species activity. It shares 64% aa sequence identity with mature humanIGF-II. Circulating IGF-I is produced by hepatocytes, while local IGF-I isproduced by many other tissues in which it has paracrine effects.
Purity	>95%, asdetermined by SDS-PAGE and HPLC.
Sequence	MGKISSLPTQ LFKCCFCDFL KVKMHTMSSS HLFYLALCLL TFTSSATAGPETLCGAELVD ALQFVCGDRG FYFNKPTGYG SSSRRAPQTG

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	IVDECCFRSC DLRRLEMYCA PLKPAKSARSVRAQRHTDMP KTQKEVHLKN ASRGSAGNKN YRM
Molecular Weight	Nativehuman Insulin Growth Factor-1 is generated by the proteolytic removal of thesignal peptide and propeptide, the molecule has a calculated molecular massof approximately 8 kDa.
Biological Activity	TheED50 was determined by a cell proliferation assay using FDC-P1 cells is ≤ 1.0ng/ml, corresponding to a specific activity of ≥ 1 x 106 units/mg.
Endotoxin	Endotoxin contentwas assayed using a LAL gel clot method. Endotoxin level was found to be lessthan 0.1 ng/g(1EU/g).
Reconstitution	A quick spin of thevial followed by reconstitution in distilled water to a concentration notless than 0.1 mg/mL. This solution can then be diluted into other buffers.
Storage	The lyophilized protein is stable forat least 2 years from date of receipt at -20°C. Upon reconstitution, thiscytokine can be stored in working aliquots at 2°C - 8°C for one month, or at-20°C for six months, with a carrier protein without detectable loss ofactivity. Avoid repeated freeze/thaw cycles.
OfficialSymbol	IGF1R
Pathways	Adherens junction;Apoptosis; Endochondral Ossification; Endocytosis; Glioma; Glioma; IGF1pathway; Id Signaling Pathway; Insulin Signaling; Integrins in angiogenesis; Long-termdepression; Melanoma; Pathways in cancer; Pathways in cancer; Prostatecancer; Senescence and Autophagy

GENE INFORMATION

Gene Name	IGF1Rinsulin-like growth factor 1 receptor [Homo sapiens]

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Synonyms	IGF1R; insulin-like growth factor 1receptor; IGFR; CD221; IGFIR; JTK13; MGC18216; MGC142170;MGC142172; insulin-like growth factor 1 receptor; IGF-I receptor;OTTHUMP00000194784; soluble IGF1R variant 1; soluble IGF1R variant 2;insulin-like growth factor I receptor
Gene ID	3480
mRNA Refseq	NM_000875
Protein Refseq	NP_000866
MIM	147370
UniProt ID	P08069
Chromosome Location	15q26
Function	ATPbinding; identical protein binding; insulin binding; insulin receptorbinding; insulin receptor substrate binding; insulin-like growthfactor-activated receptor activity; metal ion binding; nucleotide binding;phosphatidylinositol 3-kinase binding; protein binding; protein tyrosinekinase activity; receptor activity
Thefirst three domains of insulin-like growth factor 1 receptor. PDB renderingbased on 1igr.	

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