

# Recombinant Human Growth Hormone Receptor, Fc Chimera

Cat. No. GHR-450H Lot. No. (See product label)

## SPECIFICATION

**Product Overview** Recombinant Human Growth Hormone Receptor encoding the signal peptide and extracellular domain of human growth hormone receptor (GH R; aa 1-254) was fused to the Fc region of human IgG1 (aa 93-330). The chimeric protein was expressed in modified *human 293 cells*.

**Species** Human

**Source** HEK293

**ProteinLength** 1-254 a.a.

**Description** Human growth hormone receptor (GH R) is a type I membrane protein and is a member of the class I cytokine receptor family. GH R is highly expressed in the liver and in skeletal muscle as well as in the kidney, bladder, adrenal gland, brain, bone, cartilage, lung and stomach. Activation of GH R by GH regulates an extensive variety of physiological functions relating to human growth and metabolism. Specifically, binding of GH to GH R promotes the growth of bone, cartilage, and soft tissues, which occurs maximally during puberty. GH R activation also enhances the levels of hormones and neurotransmitters in the CNS, including IGF-1 and somatostatin.

**Amino Acid Sequence**  
 FSGSEATAAILS RAPWSLQSVNPGLKTNSSKEPKFTKCRSPERETF SCHWTDEVHH  
 GTKNLGPIQLFYTRRNTQEW TQEWKECPDYVSAGENSCYFNSSFTSIWIPYCIKLTS  
 NGGTVDEKCFVDEIVQDPPIALNWTL LNVS LTGIHADIQVRWEAPRNADIQKGWM  
 VLEYELQYKEVNETKWKMMDPILTT SVPVYSLKVDKEYEVRVRSKQRNSGNYGEFS

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EVLYVTLPQMRIPKVDKKVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMIS  
 RTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLH  
 QDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTC  
 LVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSGDSFFLYSKLTVDKSRWQQGNVF  
 SCSVMHEALHNHYTQKSLSLSPGK.

**Molecular Mass**

Growth Hormone Receptor-Fc Chimera migrates as a broad band between 65 and 85 kDa in SDS-PAGE due to post-translation modifications, in particular glycosylation.

**pI**

Growth Hormone Receptor-Fc Chimera separates into a number of isoforms with a pI between 5.0 and 7.7 in 2D PAGE due to post-translational modifications, in particular glycosylation. This compares with the unmodified GH R-Fc Chimera that has a predicted pI of 6.90.

**% Carbohydrate**

Purified Growth Hormone Receptor-Fc Chimera consists of 15-35% carbohydrate by weight.

**Purity**

>95%, as determined by SDS-PAGE and visualized by silver stain.

**Reconstitution**

It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.

**Storage**

Lyophilized products should be stored at 2 to 8°C. Following reconstitution short-term storage at 4°C is recommended, and longer-term storage of aliquots at -18 to -20°C. Repeated freeze thawing is not recommended.

**GENE INFORMATION**

**Gene Name**

GHR growth hormone receptor [ Homo sapiens ]

**Synonyms**

GHR; growth hormone receptor; GHBP; serum binding protein; somatotropin

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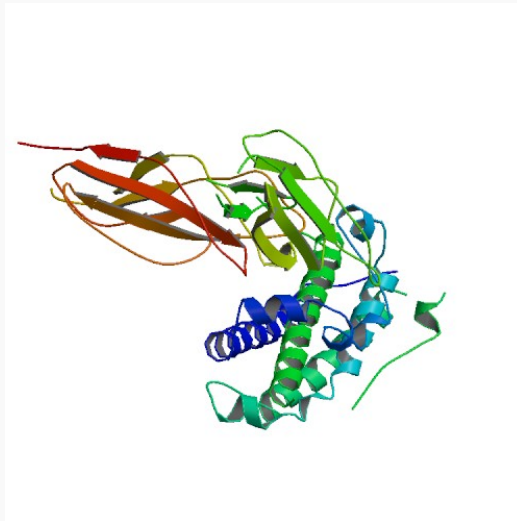
	receptor; growth hormone binding protein
<b>Gene ID</b>	<a href="#">2690</a>
<b>mRNA Refseq</b>	<a href="#">NM_000163</a>
<b>Protein Refseq</b>	<a href="#">NP_000154</a>
<b>UniProt ID</b>	<a href="#">P10912</a>
<b>Chromosome Location</b>	5p14-p12
<b>MIM</b>	<a href="#">600946</a>
<b>Pathway</b>	Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway; Neuroactive ligand-receptor interaction
<b>Function</b>	SH2 domain binding; growth hormone receptor activity; peptide hormone binding; phosphate binding; oline-rich region binding; otein kinase binding; receptor activity

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