

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 <i>human 293 cells</i> .
Species	Human
Source	HEK293
Protein Length	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 RAPWSLQSVN PGLKTNSSKEPKFTKCRSPERETF SCHWTDEVHH GTKNLGPIQLFYTRRNTQEW TQEWKECPDYVSAGENSCYFNSSFTSIWIPYCIKLTS NGGTVDKCF SVDEIVQPDPPIALNWTLLNVSLTGIHADIQVRWEAPRNADIQKGWM VLEYELQYKEVNETKWKMMDPILTTSPVPVYSLKVDKEYEVRVR SKQRNSGNYGEFS

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