

Recombinant human GH1, Active

Cat. No. GH1-1553H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human GH is a protein composed of 22.9 kDa, 205 amino residues.
Species	Human
Source	Nicotiana Benthamiana
Description	GH is a member of the somatotropin/prolactin family of hormones which play an important role in growth control. The gene, along with four other related genes, is located at the growth hormone locus on chromosome 17 where they are interspersed in the same transcriptional orientation; an arrangement which is thought to have evolved by a series of gene duplications. The five genes share a remarkably high degree of sequence identity. Alternative splicing generates additional isoforms of each of the five growth hormones, leading to further diversity and potential for specialization. This particular family member is expressed in the pituitary but not in placental tissue as is the case for the other four genes in the growth hormone locus. Mutations in or deletions of the gene lead to growth hormone deficiency and short stature.
Form	Recombinant human GH is lyophilized from 10mM Phosphate Potassium buffer pH 7,6 and 0.05M NaCl.
Molecular Mass	22.9 kDa
AA Sequence	HHHHHHFPTIPLSRPFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTS LCFSESIPSPNREETQQ KSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSN

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VYDLLKDLEEGIQTLMGRLDGSPRTGQIFKQTYS KFDTNSHNDDALLKNYGLLYCF
RKDMDKVETFLRIVQCRSVEGSCGFAG

Endotoxin < 0.04 EU/μg protein (LAL)

Purity >97% by SDS-PAGE gel

Storage This lyophilized preparation is stable at 2-8°C for short term, long storage it should be kept at -20°C. Reconstituted protein should be stored in working aliquots at -20°C. Repeated freezing and thawing is not recommended.

Reconstitution Centrifuge vial before opening. Lyophilized protein should be reconstituted in water to a concentration of 50 ng/μl. Optimal concentration should be determined for specific application and cell lines.

GENE INFORMATION

Gene Name GH1 growth hormone 1 [Homo sapiens]

Official Symbol GH1

Synonyms GH1; growth hormone 1; somatotropin; GH; GH N; GHN; hGH N; pituitary growth hormone; GH-N; hGH-N; IGHD1B;

Gene ID 2688

mRNA Refseq NM_000515

Protein Refseq NP_000506

MIM 139250

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UniProt ID	P01241
Chromosome Location	17q22-q24
Pathway	Adipogenesis, organism-specific biosystem; Cytokine Signaling in Immune system, organism-specific biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Diabetes pathways, organism-specific biosystem; Disease, organism-specific biosystem; Endochondral Ossification, organism-specific biosystem;
Function	growth factor activity; growth hormone receptor binding; growth hormone receptor binding; hormone activity; metal ion binding; prolactin receptor binding; protein binding;

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