GH Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	GH, Polyclonal Antibody
Full Product Name	GH (GHN, GH, GH-N, hGH-N, Growth hormone, pituitary growth hormone) (Biotin)
Product Gene Name	anti-GH antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. Labeled with Biotin.
Purity/Purification	Purified by Immunoaffinity chromatography.
Specificity	Recognizes human GH. No crossreactivity with other proteins.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, store at 4 degree C for one month. Can also be aliquoted and stored frozen at -20 degree C for long term.
Molecular Weight	217
OMIM	phenotype 612781
3D Structure	ModBase 3D Structure for P01241
Immunogen	E. coli-derived human GH recombinant protein (Position: F27-F217).
Conjugate	Biotin
Note	Preservative Free
Product Categories/Family for anti-GH antibody	Antibodies; Growth Factors; Cytokines
Applications Tested/Suitable for anti-GH antibody	ELISA (EIA), Western Blot (WB), Immunohistochemistry (IHC) Paraffin
Application Notes for anti-GH antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-GH antibody	MBS6404327 is an antibody targeting GH. Also known as GH (GHN, GH, GH-N, hGH-N, Growth hormone, pituitary growth hormone) (Biotin). Reactive in Human. Host: Rabbit.
Product References and Citations for anti-GH antibody	1. Niall, H. D.; Hogan, M. L.; Sauer, R.; Rosenblum, I. Y.; Greenwood, F. C.: Sequence of pituitary and placental lactogenic and growth hormones: evolution from a primordial peptide by gene reduplication. Proc. Nat. Acad. Sci. 68: 866-869, 1971. 2. Sundstrom, M.; Lundqvist, T.; Rodin, J.; Giebel, L. B.; Milligan, D.; Norstedt, G.: Crystal structure of an antagonist mutant of human growth hormone, G120R, in complex with its receptor at 2. 9 angstrom resolution. J. Biol. Chem. 271: 32197-32203, 1996.
Other Notes	Small volumes of anti-GH antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GH. It may not necessarily be applicable to this product.

NCBI GI #	134703
NCBI GeneID	2688
NCBI Accession #	P01241.2
UniProt Primary Accession #	P01241
UniProt Secondary Accession #	Q14405; Q16631; Q5EB53; Q9HBZ1; Q9UMJ7; Q9UNL5; A6NEF6
UniProt Related Accession #	P01241
NCBI Official Full Name	Somatotropin
NCBI Official Synonym Full Names	growth hormone 1
NCBI Official Symbol	GH1
NCBI Official Synonym Symbols	GH; GHN; GH-N; hGH-N; IGHD1B
UniProt Protein Name	Somatotropin
UniProt Synonym Protein Names	Growth hormone; GH; GH-N; Growth hormone 1; Pituitary growth hormone
Protein Family	Envelope glycoprotein
UniProt Gene Name	GH1
UniProt Synonym Gene Names	GH; GH-N
UniProt Entry Name	SOMA_HUMAN
NCBI Protein Information	somatotropin; pituitary growth hormone
NCBI Summary for GH	The protein encoded by this gene 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. [provided by RefSeq, Jul 2008]

UniProt Comments for GH	GH: Plays an important role in growth control. Its major role in stimulating body growth is to stimulate the liver and other tissues to secrete IGF-1. It stimulates both the differentiation and proliferation of myoblasts. It also stimulates amino acid uptake and protein synthesis in muscle and other tissues. Defects in GH1 are a cause of growth hormone deficiency isolated type 1A (IGHD1A); also known as pituitary dwarfism I. IGHD1A is an autosomal recessive deficiency of GH which causes short stature. IGHD1A patients have an absence of GH with severe dwarfism and often develop anti-GH antibodies when given exogenous GH. Defects in GH1 are a cause of growth hormone deficiency isolated type 1B (IGHD1B); also known as dwarfism of Sindh. IGHD1B is an autosomal recessive deficiency of GH which causes short stature. IGHD1B patients have low but detectable levels of GH. Dwarfism is less severe than in IGHD1A and patients usually respond well to exogenous GH. Defects in GH1 are the cause of Kowarski syndrome (KWKS); also known as pituitary dwarfism VI. Defects in GH1 are a cause of growth hormone deficiency isolated type 2 (IGHD2). IGHD2 is an autosomal dominant deficiency of GH which causes short stature. Clinical severity is variable. Patients have a positive response and immunologic tolerance to growth hormone therapy. Belongs to the somatotropin/prolactin family. 4 isoforms of the human protein are produced by alternative splicing. Protein type: Secreted; Secreted, signal peptide; Hormone Chromosomal Location of Human Ortholog: 17q24.2 Cellular Component: extracellular space; extracellular region Molecular Function: protein binding; growth hormone receptor binding; growth factor activity; prolactin receptor binding; hormone activity; metal ion binding Biological Process: positive regulation of phosphoinositide 3-kinase cascade; positive regulation of insulin-like growth factor receptor signaling pathway; positive regulation of MAP kinase activity; positive regulation of peptidyl-tyrosine phosphorylation; positive regulation of tyrosine phosphorylation of Stat5 protein; positive regulation of receptor internalization; positive regulation of JAK-STAT cascade; glucose transport; positive regulation of multicellular organism growth; JAK-STAT cascade; response to estradiol stimulus; positive regulation of tyrosine phosphorylation of Stat3 protein Disease: Isolated Growth Hormone Deficiency, Type Ia; Isolated Growth Hormone Deficiency, Type Ib; Isolated Growth Hormone Deficiency, Type Ii; Kowarski Syndrome
Research Articles on GH	**1.** In this review we highlight the evidence of extrapituitary synthesis of GH in humans. [review]
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