

## GH/Somatotropin Protein, Human (His)

Cat. No.:	HY-P73085
Synonyms:	Somatotropin; GH; GH-N; GH1
Species:	Human
Source:	E. coli
Accession:	P01241 (F27-F217)
Gene ID:	2688
Molecular Weight:	Approximately 24.7 kDa

### PROPERTIES

AA Sequence	F P T I P L S R L F      D N A M L R A H R L      H Q L A F D T Y Q E      F E E A Y I P K E Q K Y S F L Q N P Q T      S L C F S E S I P T      P S N R E E T Q Q K      S N L E L L R I S L L L I Q S W L E P V      Q F L R S V F A N S      L V Y G A S D S N V      Y D L L K D L E E G I Q T L M G R L E D      G S P R T G Q I F K      Q T Y S K F D T N S      H N D D A L L K N Y G L L Y C F R K D M      D K V E T F L R I V      Q C R S V E G S C G      F
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	<p>The Somatotropin (GH) protein plays a pivotal role in growth control, exerting its primary influence on body growth by stimulating the liver and other tissues to secrete insulin-like growth factor 1 (IGF-1). GH serves as a potent regulator of both the differentiation and proliferation of myoblasts, contributing significantly to the overall growth and development of the organism. Additionally, it plays a crucial role in enhancing amino acid uptake and promoting protein synthesis in muscle and various tissues. Structurally, GH exists in various forms, including monomers, dimers, trimers, tetramers, and pentamers, either disulfide-linked or non-covalently associated, in homomeric and heteromeric combinations. Furthermore, GH can form complexes with GH binding protein (GHBP) or with the alpha2-macroglobulin complex,</p>
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underscoring its versatile molecular interactions that contribute to its multifaceted roles in growth regulation and tissue development.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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