Datasheet for ABIN7520051

# Growth Hormone 1 Protein (GH1) (His tag)

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## Overview

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| Quantity: | 20 µg |
| Target: | Growth Hormone 1 (GH1) |
| Origin: | Human |
| Source: | Escherichia coli (E. coli) |
| Protein Type: | Recombinant |
| Biological Activity: | Active |
| Purification tag / Conjugate: | This Growth Hormone 1 protein is labelled with His tag. |

## Product Details

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| Purpose: | Active Recombinant Human Somatotropin/GH-N/GH1 Protein |
| Sequence: | FPTIPLSRLF DNAMLRAHRL HQLAFDTYQE FEEAYIPKEQ KYSFLQNPQT SLCFSESIPT PSNREETQQK SNLELLRISL LLIQSWLEPV QFLRSVFANS LVYGASDSNV YDLLKDLEEG IQTLMGRLED GSPRTGQIFK QTYSKFDTNS HNDDALLKNY GLLYCFRKDM DKVETFLRIV QCRSVEGSCG F |
| Specificity: | Phe27-Phe217 |
| Purity: | > 92 % by SDS-PAGE. |
| Sterility: | 0.22 µm filtered |
| Endotoxin Level: | < 0.1 EU/µg of the protein by LAL method. |
| Biological Activity Comment: | Measured by its binding ability in a functional ELISA. Immobilized Human GH1 at 2 µg/mL (100 µL/well) can bind Human GHR with a linear range of 0.1-19.4 ng/mL. |

## Target Details

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| Target: | Growth Hormone 1 (GH1) |
| Alternative Name: | Somatotropin/GH-N/GH1 (GH1 Products) |
| Background: | Description: Growth hormone (GH), also known as somatotropin, is a member of a family of growth factors that includes prolactin, placental lactogens, proliferins, and somatolactin. It is synthesized primarily by somatotropes in the anterior pituitary and is stored in secretary granules. The pulsatile release of GH into circulation is regulated by the concerted actions of the hypothalamic hormones - GH-releasing hormone (GHRH) and somatostatin (SST) - as well as by signals from the periphery - ghrelin and leptin. Human GH is a pleiotropic cytokine that exerts its biological actions by binding to the transmembrane GH receptor, which is present in many cell types. GH stimulates the liver and other tissues to produce IGF-1, which regulates growth and metabolism. GH has also been shown to have direct effects on growth that is independent of IGF-1. GH, directly or indirectly via IGF-1, can act on B cells, T cells, NK cells, macrophages and neutrophils to exert immunomodulatory activities. In addition, GH can act directly on various cell types to induce lipolysis, lactation, amino acid uptake and protein synthesis.<br>Name: GH1, GH, GH-N, GHB5, GHN, IGHD1B, hGH-N, somatotropin,GH,GH-N,GHB5,GHN,IGHD1B,hGH-N |
| Gene ID: | 2688 |
| UniProt: | P01241 |
| Pathways: | NF-kappaB Signaling, JAK-STAT Signaling, Intracellular Steroid Hormone Receptor Signaling Pathway, Peptide Hormone Metabolism, Regulation of Intracellular Steroid Hormone Receptor Signaling, Regulation of Hormone Metabolic Process, Response to Growth Hormone Stimulus, Regulation of Hormone Biosynthetic Process |

## Application Details

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| Restrictions: | For Research Use only |

## Handling

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| Format: | Lyophilized |
| Reconstitution: | Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid votex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1 % BSA, 5 % HSA, 10 % FBS or 5 % Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles. |

## Handling

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| Buffer: | Lyophilized from a 0.22 µm filtered solution of 20 mM Tris, 150 mM NaCl, pH 8.0. |
| Storage: | -20 °C,-80 °C |
| Storage Comment: | Store the lyophilized protein at -20°C to -80 °C for long term.<br>After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week. |

 