

DATASHEET

Version 20181206

GH, Human(CHO-expressed)

Cat. No.: Z03005-10

Size: 10.0 ug

Synonyms: GH1, GH, GHN, GH-N, hGH-N, Pituitary growth hormone, Growth hormone 1, Somatotropin

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 secretory 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. The human GH cDNA encodes a 217 amino acid (aa) residue precursor protein with a 26 aa putative signal peptide. By alternative splicing, at least four isoforms of GH have been identified.

Amino Acid Sequence:

```
00001 FPTIPLSRFL DNASLRAHRL HQLAFDTYQE FEEAYIPKEQ
00041 KYSFLQNPQT SLCFSES IPT PSNREETQQK SNLELLRISL
00081 LLIQSWLEPV QFLRSVFANS LVYGASDSNV YDLLKDLEEG
00121 IQTLMGRLED GSPRTGQIFK QTYSKFDTNS HNDDALLKNV
00161 GLLYCFRKDM DKVETFLRIV QCRSVEGSCG F
```

Source: CHO

Species: Human

Biological Activity: ED₅₀ < 0.5 ng/ml, measured in a cell proliferation assay using Nb2-11 cells, corresponding to a specific activity of >2 x 10⁶ units/mg

Molecular Weight: 20-24 kDa, observed by non-reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O or PBS at 100 µg/ml.

Purity: > 95% as analyzed by SDS-PAGE and HPLC.

Endotoxin Level: < 0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant Human Growth Hormone (GH) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhGH should be stable up to 1 week at 4°C or up to 2 months at -20°C.