

# Recombinant human Growth Hormone 1/GH1, 20kDa variant protein

Catalog Number: GRH3002

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

27-202aa

### UniProt No.

P01241

### NCBI Accession No.

NP\_072053.1

### Alternative Names

Somatotropin isoform 2, 20kDa Growth Hormone, GH, GH1, GHN, GH-N, Growth hormone, Growth hormone 1, hGH-N, Pituitary growth hormone, Somatotropin

## PRODUCT SPECIFICATION

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### Molecular Weight

20 kDa (177aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by BCA assay)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured in a cell proliferation assay using Nb2-11 Rat lymphoma cells. The ED50 range  $\leq$ 1ng/ml.

### Tag

Non-Tagged

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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# Recombinant human Growth Hormone 1/GH1, 20kDa variant protein

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## Description

The 20KDa variant form of human growth hormone (20KDa hGH) presents in extracts from pituitary glands and it differs from the major form of hGH (22K, 191 amino acid) by the deletion of amino acid residues 32-46. The physiological role of 20K hGH remains to be determined partly but it regards the main function as stimulation of somatic and bone growth, as well as an increase in the size and mass of organs and tissues. Recombinant 20KDa human growth hormone was purified by FPLC gel-filtration chromatography, after refolding of the isolated inclusion bodies in a renaturation buffer.

## Amino acid Sequence

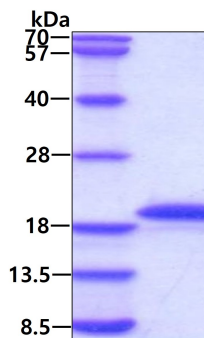
MFPTIPLSRL FDNAMLRAHR LHQLAFDTYQ EFNPTQSLCF SESIPTPSNR EETQQKSNLE LLRISLLLIQ SWLEPVQFLR SVFANSLVYG ASDSNVYDLL KDLEEGIQTL MGRLEDGSPR TGQIFKQTY S KFDTN SHNDD ALLKNYGLLY CFRKDMDKVE TFLRIVQCRS VEGSCGF

## General References

- Frigeri, et al (1979) Biochem Biophys Res Commun. 14:778-82
- Adelman, et al (1983) DNA. 2; 183-93
- Tsushima, et al (2000) Endocr J. 47; S17-21
- Horan, M.,et al(2003) Hum. Mutat. 21(4), 408-423

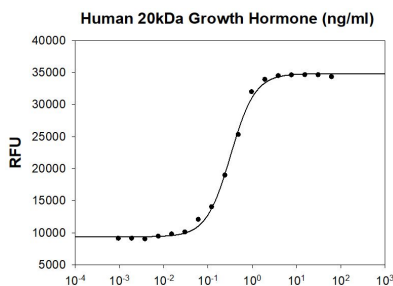
## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

### Biological Activity



Human 20kDa Growth Hormone stimulates cell proliferation of the Nb2-11 Rat lymphoma cells. The ED50 range  $\leq 1$  ng/ml.