

Datasheet for ABIN1719793

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

3 Images

1 Publication

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## Overview

Quantity:	100 µg
Target:	Growth Hormone 1 (GH1)
Origin:	Human
Source:	Tobacco (Nicotiana benthamiana)
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This Growth Hormone 1 protein is labelled with His tag.
Application:	Western Blotting (WB), Cell Culture (CC)

## Product Details

Sequence:	HHHHHHFPTI PLSRPFDNAM LRAHRLHQLA FDTYQEFEEA YIPKEQKYSF LQNPQTSLCF SESIPTPSNR EETQQKSNLE LLRISLLLIQ SWLEPVQFLR SVFANSLVYG ASDSNVYDLL KDLEEGIQTL MGRLEDGSPR TGQIFKQTYS KFDTNSHNDD ALLKNYGLLY CFRKDMDKVE TFLRIVQCRS VEGSCGFAG
Characteristics:	Serological Identification: The protein was electrophoresed under reducing condition on a 15 % SDS-polyacrylamide gel, transferred by electroblotting to a NC membrane and visualized by immune-detection with specific antibody HGH. (Fig.1 Lanes 4-5). Molecular formula: C1025H1570N2800O306S7. Isoelectric Point: 5,98. Extinction coefficient: E 0.1 % (1g/L) = 0.77 (A 280 nm). This product contains no animal-derived components or impurities. Produced by transient expression of human Growth Hormone in non-transgenic plants.

## Product Details

Purification:	Recombinant human Growth Hormone contains a 6-His-tag at the N-terminal end and is purified by sequential chromatography (FPLC).
Purity:	> 97 % by SDS polyacrylamide gel electrophoresis and the gel was stained with Coomassie blue.
Endotoxin Level:	< 0.04 EU/μg protein (LAL method)

## Target Details

Target:	Growth Hormone 1 (GH1)
Alternative Name:	GH1 ( <a href="#">GH1 Products</a> )
Background:	<p>Synonyms: GH, GH-N, GHN, IGHD1B, hGH-N, pituitary growth hormone, somatotropin</p> <p>GH 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.</p>
Molecular Weight:	22.9 kDa
Gene ID:	2688, 139250
Pathways:	<a href="#">NF-kappaB Signaling</a> , <a href="#">JAK-STAT Signaling</a> , <a href="#">Intracellular Steroid Hormone Receptor Signaling Pathway</a> , <a href="#">Peptide Hormone Metabolism</a> , <a href="#">Regulation of Intracellular Steroid Hormone Receptor Signaling</a> , <a href="#">Regulation of Hormone Metabolic Process</a> , <a href="#">Response to Growth Hormone Stimulus</a> , <a href="#">Regulation of Hormone Biosynthetic Process</a>

## Application Details

Comment:	Biological Activity: The biological activity of human Growth Hormone is measured by cell proliferation using Nb2-11 cells. ED50 ≤ 0.04-0.1 ng/mL
Restrictions:	For Research Use only

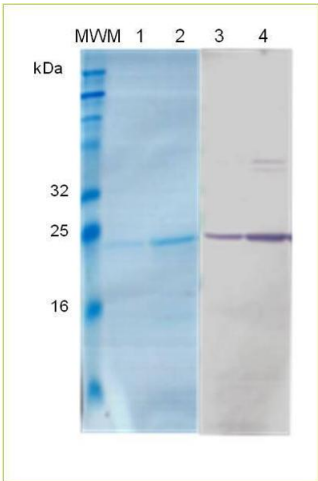
## Handling

Format:	Lyophilized
Reconstitution:	Lyophilized protein should be reconstituted in water to a concentration of 200 ng/μL.
Buffer:	PBS 0.05 M buffer at pH 7.5
Storage:	4 °C

## Publications

Product cited in: Rizk, Sharaki, Meleis, Younan, Elkial, Moez: "Detection of Epithelial Ovarian Cancer using C8Magnetic Bead Separation and MALDI-TOF Plasma Proteome Profiling in Egyptian Females." in: **Asian Pacific journal of cancer prevention : APJCP**, Vol. 20, Issue 12, pp. 3603-3609, (2020) ([PubMed](#)).

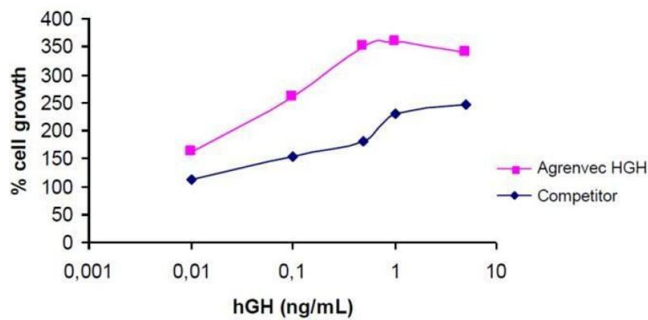
## Images



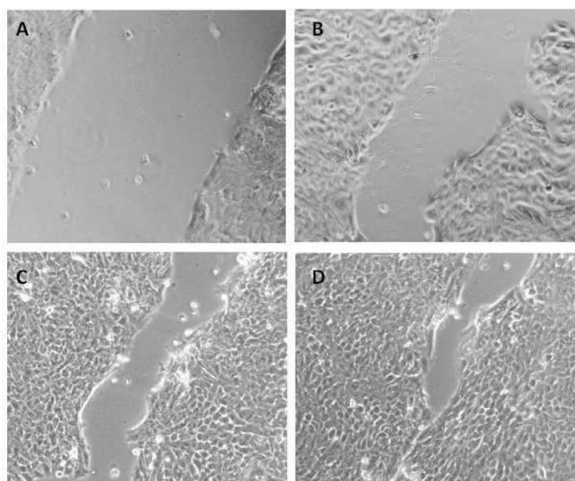
### SDS-PAGE

**Image 1.** SDS-PAGE analysis of recombinant HGH. Samples were loaded in 15 % SDS-polyacrylamide gel and stained with coomassie blue. Lane MWM: Molecular weight marker (kDa), Lane 1 and 2: contains 0.05 μg and 0.3 μg of recombinant HGH. Lane 3 and 4: immune-detection with specific anti-human GH 0.05 μg and 0.3 μg respectively.

### Nb2-11 assay



**Image 2.** The biological activity of human Growth Hormone is measured by cell proliferation using Nb2-11 cells. ED50 ≤ 0.04-0.1 ng/mL



**Image 3.** Cell migration after 24h of treatment with different concentrations of rh GH, scale bar 100 px, A: Untreated cells, B: Positive control Growth factor cocktail 10 %, C: 1 ng/mL rh GH, D: 5 ng/mL rh GH.