Product datasheet

Recombinant human Growth Hormone protein
ab116162

Overview

Product name: Recombinant human Growth Hormone protein
Protein length: Full length protein

Description

Nature: Recombinant
Source: Escherichia coli

Amino Acid Sequence

Accession: P01241
Species: Human

Sequence:
MFPTIPLSRL FDAMLRAHR LHQLAFDTYQ EFEAYIPKE QKYSFLQNPQ TSLCFSESI
TPSNREETQ KSNLELLRIS LLIQSWLEP
VQFLRSVFAN SLVYGASDSN VYDLLKDLEE
GQTLMGRLE DGSPRTGQIF KQYSKFDTN
SHNDDALLKN YGLLYCFRKD MDKVETFLRI
VQCRSVEGSC GF

Molecular weight: 22 kDa
Amino acids: 27 to 217

Specifications

Our Abpromise guarantee covers the use of ab116162 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Biological activity: The activity is determined by the ability to induce proliferation of Nb211 rat lymphoma cells for this effect and is typically 25-100 pg/mL.

Applications
- SDS-PAGE
- HPLC
- Functional Studies

Endotoxin level: < 0.100 Eu/µg
### Purity

> 95% SDS-PAGE.

Protein Content and Purity determined by: UV spectroscopy at 280 nm; RP-HPLC calibrated against a known standard; Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

### Form

Lyophilised

### Preparation and Storage

#### Stability and Storage

Shipped at 4°C. Store at -80°C. Avoid freeze / thaw cycle. For long term storage it is recommended to add a carrier protein on reconstitution (0.1% HSA or BSA).

- **pH:** 8.00
- **Constituent:** 0.17% Sodium carbonate

This product is an active protein and may elicit a biological response in vivo, handle with caution.

#### Reconstitution

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

### General Info

#### Function

Plays an important role in growth control. Its major role in stimulating body growth is to stimulate the liver and other tissues to secrete IGF-1. It stimulates both the differentiation and proliferation of myoblasts. It also stimulates amino acid uptake and protein synthesis in muscle and other tissues.

#### Involvement in disease

Defects in GH1 are a cause of growth hormone deficiency isolated type 1A (IGHD1A) [MIM:262400]; also known as pituitary dwarfism I. IGHD1A is an autosomal recessive deficiency of GH which causes short stature. IGHD1A patients have an absence of GH with severe dwarfism and often develop anti-GH antibodies when given exogenous GH.

Defects in GH1 are a cause of growth hormone deficiency isolated type 1B (IGHD1B) [MIM:612781]; also known as dwarfism of Sindh. IGHD1B is an autosomal recessive deficiency of GH which causes short stature. IGHD1B patients have low but detectable levels of GH. Dwarfism is less severe than in IGHD1A and patients usually respond well to exogenous GH.

Defects in GH1 are the cause of Kowarski syndrome (KWKS) [MIM:262650]; also known as pituitary dwarfism VI.

Defects in GH1 are a cause of growth hormone deficiency isolated type 2 (IGHD2) [MIM:173100]. IGHD2 is an autosomal dominant deficiency of GH which causes short stature. Clinical severity is variable. Patients have a positive response and immunologic tolerance to growth hormone therapy.

#### Sequence similarities

Belongs to the somatotropin/prolactin family.

#### Cellular localization

Secreted.

### Images
ab116162 used in Western Blot. Figure: 1 ug in each lane (-) non-reducing conditions and (+) reducing conditions in a 4-20% Tris-Glycine gel stained with Coomassie Blue. Human GH is predicted to have a MW of 22.2 kDa.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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