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Datasheet for 009-001-V13-0100

rHuman Growth Hormone Protein

Overview

Description:	Human Growth Hormone Recombinant Protein - 009-001-V13-0100
Item No.:	009-001-V13-0100
Size:	100 µg
Applications:	SDS-PAGE, Cellular Assay
Origin:	Human
Expressed in:	E. coli

Product Details

Background:	Growth Hormone (GH) is an important growth factor made in and secreted throughout the body by the anterior pituitary gland. It stimulates growth and cell reproduction and regeneration in humans and other animals. The inability to appropriately produce or respond to GH results in diseases of decreased stature in children and adults. Although GH is used to treat several growth disorders, it is thought to be a very complex hormone with many of its functions yet to be uncovered. Recombinant human GH is non-glycosylated protein, containing 192 amino acids, with a molecular weight of 22.2 kDa.
Synonyms:	Growth hormone (GH), Pituitary growth hormone, Somatotropin
Species of Origin:	Human
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	GH1
Purity/Specificity:	Growth Hormone purity was determined to be greater than 98% as determined by analysis by UV-Spectroscopy at 280nm and by reducing and non-reducing SDS-pAGE.
Relevant Links:	• UniProtKB - P01241

Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	Cellular Assay (Based on references)
Application Note:	Growth Hormone Recombinant Protein has been tested by SDS-PAGE and biological activity and is suitable as a control for polyclonal or monoclonal anti-Growth Hormone in immunological assays. Buffer: 20mM Sodium Bicarbonate, pH 8.0
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
Other:	Endotoxin Level: Measured by kinetic LAL analysis and is typically ≤ 1 EU/µg protein. Biologic Activity: The activity is determined by the ability to induce proliferation of PDF 9D11 cells for this effect and is typically 0.5-0.8 ng/mL.

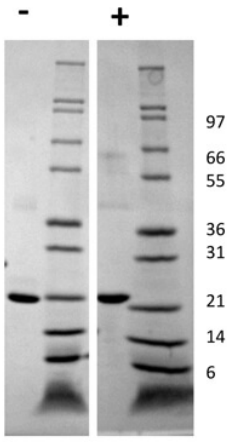
Formulation

Physical State:	Lyophilized
Concentration:	0.1 mg/ml
Buffer:	See application note.
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	100 µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

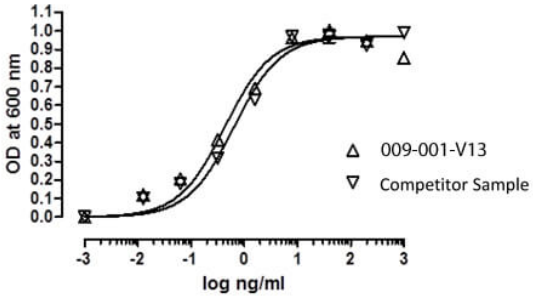
Shipping Condition:	Ambient
Storage Condition:	Store vial at -20° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.
Expiration:	Expiration date is six (6) months from date of receipt.

Images



SDS-PAGE

SDS-PAGE of Human Growth Hormone Recombinant Protein. Lane 1: 1 µg Human GH in non-reducing conditions (-). Lane 2: Molecular weight marker. Lane 3: 1 µg Human GH in reducing conditions (+). Lane 4: Molecular weight marker. Human GH is predicted have a MW of 22.2 kDa.



SDS-PAGE

Bioactivity of Human Growth Hormone Recombinant Protein. Serial dilutions of Human GH, starting at 3 ng/mL, were added to PDF 9D11 cells. Proliferation was measured and the linear portion of the curve was us used to calculate the EC50. The ED50 of Human GH is 0.33-0.57 ng/mL. This value is comparable to the typical expected range of 0.5-0.8 ng/mL.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.