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Datasheet for 009-F01-V21-0020

rHuman IGF-I Protein

Overview

Description:	Human Insulin-like Growth Factor I Recombinant Protein (Animal Free) - 009-F01-V21-0020
Item No.:	009-F01-V21-0020
Size:	20 µg
Applications:	SDS-PAGE, Cellular Assay
Origin:	Human
Expressed in:	E. coli

Product Details

Background:	Insulin-like Growth Factor I, IGF-I, is a growth factor produced by the liver when stimulated with growth hormone and can be found circulating throughout the body . IGF-I activates the IGF-I receptor (IGF1R) and the insulin receptor to mediate growth of almost every cell of the body. IGF-I is known as one of the most potent activators of the AKT signaling pathway which is known to be a stimulator of proliferation and an inhibitor of programmed cell death. Mature human IGF-I is 100% homologous with bovine and porcine proteins. Recombinant human IGF-I is a non-glycosylated protein, containing 70 amino acids, with a molecular weight of 7.7 kDa.
Synonyms:	Somatamedin C, mechano growth factor (MGF), IGF-IA
Species of Origin:	Human
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	IGF1
Purity/Specificity:	Insulin-like Growth Factor I is produced with no animal-derived raw products, animal free equipment and animal free protocols. Purity was determined to be greater than 98% as determined by HPLC, analysis by UV-Spectroscopy at 280nm, and by reducing and non-reducing SDS-PAGE.
Relevant Links:	• UniProtKB - P05019

Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	Cellular Assay (Based on references)
Application Note:	Insulin-like Growth Factor I Recombinant Protein has been tested by SDS-PAGE and biological activity and is suitable as a control for polyclonal or monoclonal anti-Insulin-like Growth Factor I in immunological assays.
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 dose-dependent proliferation of mouse FDC-P1 cells is typically less than 1.0 ng/mL.

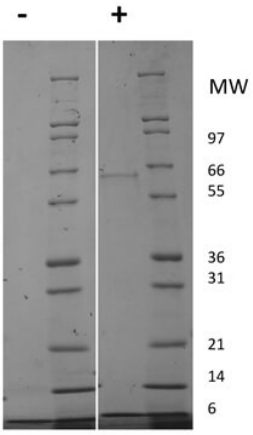
Formulation

Physical State:	Lyophilized
Buffer:	0.1% Trifluoroacetic acid
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	20µl (20-200µl)
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

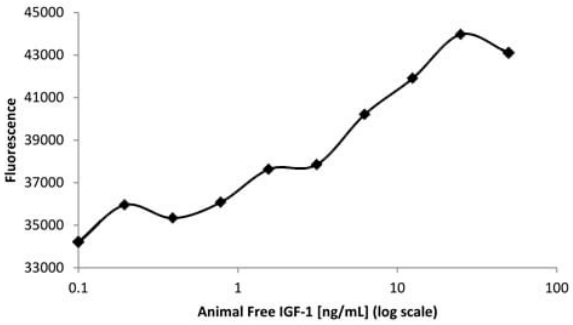
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results 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 Insulin-like Growth Factor I Animal Free Recombinant Protein. Lane 1: 1 µg Human IGF-I AF in non-reducing conditions (-). Lane 2: Molecular weight marker. Lane 3: 1 µg Human IGF-I AF in reducing conditions (+). Lane 4: Molecular weight marker. Human IGF-I has a predicted MW of 7.7 kDa.



SDS-PAGE

Bioactivity of Human Insulin-like Growth Factor I Recombinant Protein Animal Free. FDC-P1 cells were cultured with 0 to 50 ng/mL Human IGF-I AF. Cell proliferation was measured after 48 hours and the linear portion of the curve was us used to calculate the ED50. The ED50 of Human IGF-I AF is 2.8-4.2 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.