

Datasheet for 009-001-V14-0005**rHuman Gro-alpha/CXCL1 Protein****Overview**

Description:	Human Gro Alpha (CXCL1) Recombinant Protein - 009-001-V14-0005
Item No.:	009-001-V14-0005
Size:	5 µg
Applications:	SDS-PAGE, Cellular Assay
Origin:	Human
Expressed in:	E. coli

Product Details

Background:	Growth Regulated Protein alpha (GRO α), also known as CXCL1, is a chemokine thought to have mitogenic properties and chemoattract neutrophils. Secreted by macrophages, epithelial cells, neutrophils and melanomas, GRO α signals through chemokine receptor, CXCR2, and has been implicated in the processes of spinal cord formation, inflammation, angiogenesis, tumorigenesis, and wound healing. Recombinant human GRO α is a non-glycosylated protein, containing 73 amino acids, with a molecular weight of 7.9 kDa.
Synonyms:	C-X-C motif chemokine 1, GRO-alpha(1-73) MGSA α , mKC, NAP-3, GRO1, rCINC
Species of Origin:	Human
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	CXCL1
Purity/Specificity:	Gro Alpha (CXCL1) 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 - P09341

Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	Cellular Assay (Based on references)
Application Note:	Gro Alpha Recombinant Protein has been tested by SDS-PAGE and biological activity and is suitable as a control for polyclonal or monoclonal anti-Gro Alpha 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/ μ g protein. Biologic Activity: The activity is determined by the ability to chemoattract human neutrophils at concentrations between 10-100 ng/mL.

Formulation

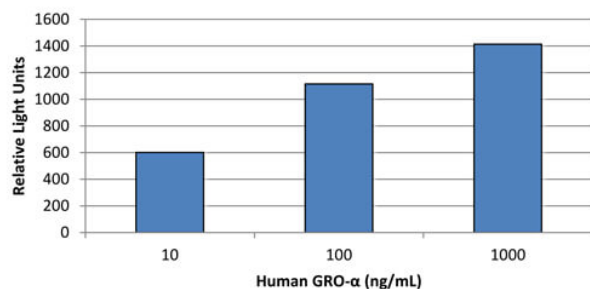
Physical State:	Lyophilized
Buffer:	0.1% Trifluoroacetic acid
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	5 μ l (5-50 μ l)
Reconstitution Buffer:	Restore with deionized water (or equivalent)

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.

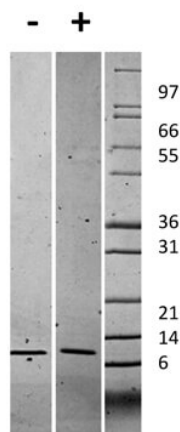
Images

Human GRO- α Induced Chemotaxis of Human Neutrophils



SDS-PAGE

Bioactivity of Human Gro Alpha (CXCL1) Recombinant Protein. Triplicate samples of primary human neutrophils from three donors were allowed to migrate to Human GRO- α /CXCL1 (10, 100 and 1000 ng/mL). After 30 minutes, cells that migrated were counted using a luminescent substrate and displayed on the bar graph above. Significant levels of migration over basal were seen in response to Human GRO- α /CXCL1 starting at 10 ng/mL.



SDS-PAGE

SDS-PAGE of Human Gro Alpha (CXCL1) Recombinant Protein. Lane 1: 1 µg Human GRO- α in non-reducing conditions (-). Lane 2: 1 µg Human GRO- α in reducing conditions (+). Lane 3: Molecular weight marker. Human GRO- α has a predicted MW of 7.8 kDa.

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.