

Datasheet for 012-001-V74-1000**rRat CCL2 Protein****Overview**

Description:	Rat Monocyte Chemotactic Protein-1 (CCL2) Recombinant Protein - 012-001-V74-1000
Item No.:	012-001-V74-1000
Size:	1 mg
Applications:	SDS-PAGE, Cellular Assay
Origin:	Rat
Expressed in:	E. coli

Product Details

Background:	Monocyte Chemotactic Protein 1 (MCP-1), also known as CCL2, is thought to be produced by injured or infected tissues. MCP-1 signals through G protein-coupled receptors, CCR2 and CCR4, to recruit memory T cells, monocytes and dendritic cells. Recombinant rat MCP-1 is a non-glycosylated protein, containing 125 amino acids, with a molecular weight of 14.1 kDa.
Synonyms:	Immediate-early serum-responsive protein JE, Monocyte chemoattractant protein 1, MCAF, Monocyte chemotactic protein 1 (MCP-1), Small-inducible cytokine A2
Species of Origin:	Rat
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	Ccl2
Purity/Specificity:	Monocyte Chemotactic protein-1 (CCL2) 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 - P14844

Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	Cellular Assay (Based on references)
Application Note:	Monocyte Chemotactic Protein-1 Recombinant Protein has been tested by SDS-PAGE and biological activity and is suitable as a control for polyclonal or monoclonal anti-Monocyte Chemotactic Protein-1 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 monocytes or THP-1 cells at 4 - 15 ng/mL.

Formulation

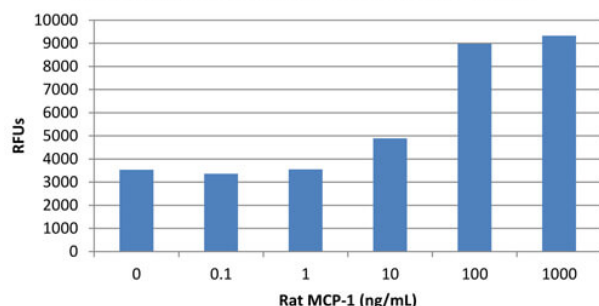
Physical State:	Lyophilized
Buffer:	0.1% Trifluoroacetic acid
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	1.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

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.

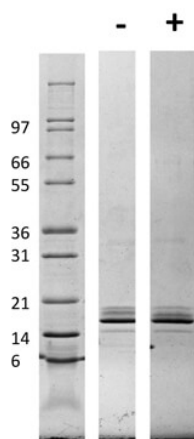
Images

Rat MCP-1 Induced Chemotaxis of THP-1 Cells



SDS-PAGE

Bioactivity of Rat Monocyte Chemotactic Protein-1 (CCL2) Recombinant Protein. Human THP-1 cells were allowed to migrate to Rat MCP-1 at (0, 0.1, 1, 10, 100 and 1000 ng/mL). After 45 minutes, cells that migrated were counted using a luminescent substrate and displayed on the bar graph above. Significant increases in migration over basal levels were seen in response to Rat MCP-1 starting at 10 ng/mL. This value is comparable to expected ranges of a chemotactic response of primary human monocytes.



SDS-PAGE

SDS-PAGE of Rat Monocyte Chemotactic Protein-1 (CCL2) Recombinant Protein. Lane 1: Molecular weight marker. Lane 2: 1 µg Rat MCP-1 in non-reducing conditions (-). Lane 3: 1 µg Rat MCP-1 in reducing conditions (+). Rat MCP-1 has a predicted MW of 14.1 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.