

For Research Use Only

# Rat CCL4/MIP-1 beta Recombinant monoclonal antibody, PBS Only (Capture)

Catalog Number: 87439-1-PBS



## Basic Information

<b>Catalog Number:</b> 87439-1-PBS	<b>GenBank Accession Number:</b> NM_053858.1	<b>Purification Method:</b> Protein A purification
<b>Source:</b> Rabbit	<b>GeneID (NCBI):</b> 116637	<b>CloneNo.:</b> 251973B10
<b>Isotype:</b> IgG	<b>UNIPROT ID:</b> P50230	
<b>Immunogen Catalog Number:</b> EG3200	<b>Full Name:</b> chemokine (C-C motif) ligand 4	
	<b>Calculated MW:</b> 10 kDa	
	<b>Observed MW:</b> 10 kDa	

## Applications

**Tested Applications:**  
WB, IF/ICC, IP, Cytometric bead array, Indirect ELISA

**Species Specificity:**  
mouse, rat

## Background Information

CCL4 (C-C motif chemokine ligand 4), also known as macrophage inflammatory protein-1 $\beta$  (MIP-1 $\beta$ ), is a pivotal chemokine that governs immune cell migration and activation. By binding primarily to its receptor CCR5, it directs the recruitment of monocytes, dendritic cells, natural killer (NK) cells, and T lymphocytes to sites of inflammation and infection. CCL4 plays a crucial role in antiviral defense, antitumor immunity, and inflammatory responses. However, dysregulated CCL4 signaling is implicated in the pathogenesis of chronic inflammatory diseases, autoimmune disorders, and cancer progression. Notably, due to its shared use of the CCR5 receptor with HIV-1, CCL4 also participates in HIV pathogenesis. This dual role as a mediator of both protective immunity and pathology positions CCL4 as a significant biomarker and a promising therapeutic target in immunology and medicine.

## Storage

**Storage:**  
Store at -80°C.  
**The product is shipped with ice packs. Upon receipt, store it immediately at -80°C**

**Storage Buffer:**  
PBS only, pH7.3

For technical support and original validation data for this product please contact:

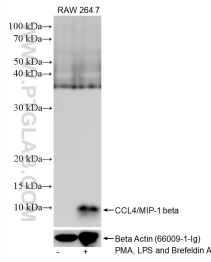
T: 4006900926

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

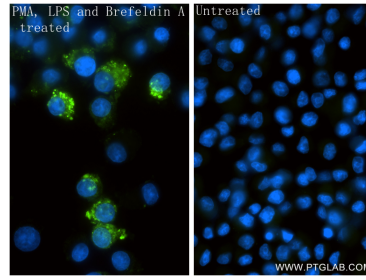
W: [ptgcn.com](http://ptgcn.com)

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

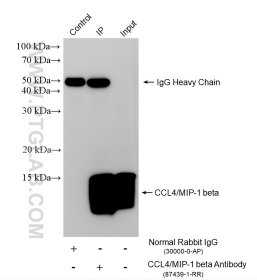
## Selected Validation Data



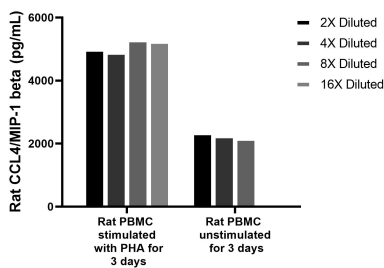
PMA, LPS and Brefeldin A treated RAW 264.7 cells were subjected to SDS PAGE followed by western blot with 87439-1-RR (CCL4/MIP-1 beta antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 87439-1-PBS in a different storage buffer formulation.



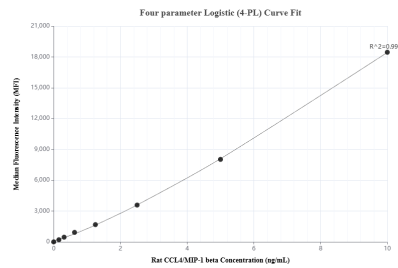
Immunofluorescent analysis of (4% PFA) fixed PMA, LPS and Brefeldin A treated NR8383 cells using CCL4/MIP-1 beta antibody (87439-1-RR, Clone: 251973B10) at dilution of 1:800 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 87439-1-PBS in a different storage buffer formulation.



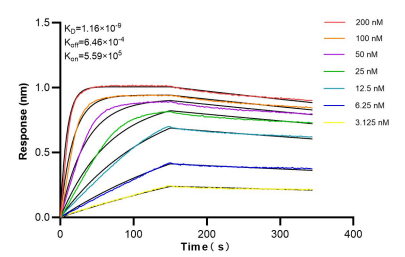
IP result of anti-CCL4/MIP-1 beta (IP:87439-1-RR, 4ug; Detection:87439-1-RR 1:1000) with PMA, LPS and Brefeldin A treated NR8383 cells lysate 800 ug. This data was developed using the same antibody clone with 87439-1-PBS in a different storage buffer formulation.



Rat peripheral blood mononuclear cells (PBMC) ( $1.0 \times 10^6$  cells/mL) were cultured in DMEM supplemented with 8% fetal bovine serum, 2.5 mM L-glutamine, 100 U/mL penicillin, and 100  $\mu$ g/mL streptomycin sulfate. Cells were cultured stimulated or unstimulated with 10  $\mu$ g/mL PHA for 3 days. Aliquots of the cell culture supernates were removed and assayed for levels of rat CCL4/MIP-1 beta, and measured 5102.7 pg/mL, 2247.5 pg/mL, respectively.



Cytometric bead array standard curve of MP03044-1, RAT CCL4/MIP-1 beta Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 87439-1-PBS. Detection antibody: 87439-2-PBS. Standard: Eg3200. Range: 0.156-10 ng/mL.



Biayer interferometry (BLI) kinetic assays of 87439-1-RR against Rat CCL4/MIP-1 beta were performed. The affinity constant is 1.16 nM.