

For Research Use Only

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

Catalog Number: 87439-1-PBS



Basic Information

Catalog Number: 87439-1-PBS	GenBank Accession Number: NM_053858.1	Purification Method: Protein A purification
Size: 100ug, Concentration: 1 mg/ml by Nanodrop;	GeneID (NCBI): 116637	CloneNo.: 251973B10
Source: Rabbit	UNIPROT ID: P50230	
Isotype: IgG	Full Name: chemokine (C-C motif) ligand 4	
Immunogen Catalog Number: EG3200	Calculated MW: 10 kDa	
	Observed MW: 10 kDa	

Applications

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

Species Specificity:
mouse, rat

Product Information

87439-1-PBS targets CCL4/MIP-1 beta as part of a matched antibody pair:

MP03044-1: 87439-1-PBS capture and 87439-2-PBS detection (validated in Cytometric bead array)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

Background Information

CCL4 (C-C motif chemokine ligand 4), also known as macrophage inflammatory protein-1 β (MIP-1 β), 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

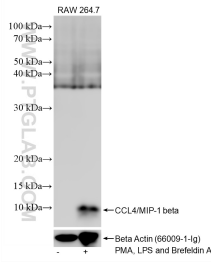
Storage:
Store at -80°C.

Storage Buffer:
PBS only, pH7.3

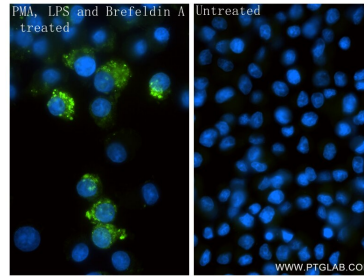
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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

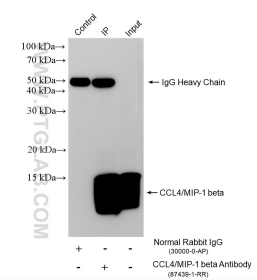
Selected Validation Data



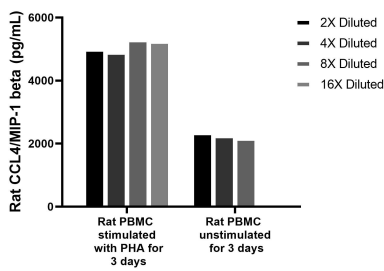
PMA, LPS and Brefeldin A treated RAW 264.7 cells were subjected to SDS PAGE followed by western blot with 87439-1-RR (CCL4/MIP-1 beta antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 87439-1-PBS in a different storage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



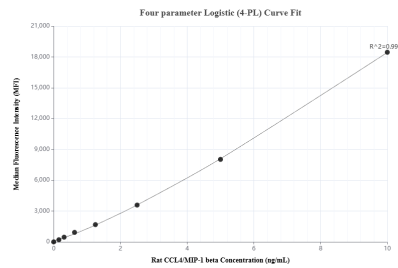
Immunofluorescent analysis of (4% PFA) fixed PMA, LPS and Brefeldin A treated NR8383 cells using CCL4/MIP-1 beta antibody (87439-1-RR, Clone: 251973B10) at dilution of 1:800 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 87439-1-PBS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



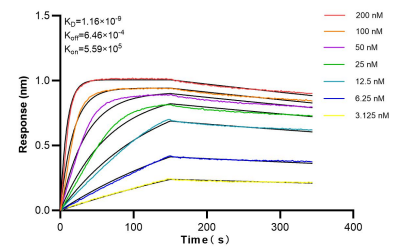
IP result of anti-CCL4/MIP-1 beta (IP:87439-1-RR, 4ug; Detection:87439-1-RR 1:1000) with PMA, LPS and Brefeldin A treated NR8383 cells lysate 800 ug. This data was developed using the same antibody clone with 87439-1-PBS in a different storage buffer formulation.



Rat peripheral blood mononuclear cells (PBMC) (1.0×10^6 cells/mL) were cultured in DMEM supplemented with 8% fetal bovine serum, 2.5 mM L-glutamine, 100 U/mL penicillin, and 100 µg/mL streptomycin sulfate. Cells were cultured stimulated or unstimulated with 10 µg/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.