



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Cap)
Clone number:	PSH21-47

Description: Chemokine (C-C motif) ligand 8 (CCL8), also known as monocyte chemoattractant protein 2 (MCP2), is a protein that in humans is encoded by the CCL8 gene. CCL8 is a small cytokine belonging to the CC chemokine family. The CCL8 protein is produced as a precursor containing 109 amino acids, which is cleaved to produce mature CCL8 containing 75 amino acids. The gene for CCL8 is encoded by 3 exons and is located within a large cluster of CC chemokines on chromosome 17q11.2 in humans. MCP-2 is chemotactic for and activates many different immune cells, including mast cells, eosinophils and basophils, (that are implicated in allergic responses), and monocytes, T cells, and NK cells that are involved in the inflammatory response. CCL8 elicits its effects by binding to several different cell surface receptors called chemokine receptors. These receptors include CCR1, CCR2B, CCR3 and CCR5. CCL8 is a CC chemokine that utilizes multiple cellular receptors to attract and activate human leukocytes. CCL8 is a potent inhibitor of HIV1 by virtue of its high-affinity binding to the receptor CCR5, one of the major co-receptors for HIV1. In addition, CCL8 attributes to the growth of metastasis in breast cancer cells. The manipulation of this chemokine activity influences the histology of tumors promoting steps of metastatic processes. CCL8 is also involved in attracting macrophages to the decidua in labor.

Immunogen: Recombinant protein within Recombinant Human MCP-2 / CCL8 aa 24-99 (HA211228).

Positive control: Recombinant Human MCP-2 / CCL8 protein (HA211228).

Subcellular location: Secreted.

Database links: SwissProt: P80075 Human

Recommended Dilutions:

ELISA(Cap) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH21-48] to Human MCP-2 / CCL8 antibody (Detector) (HA725284) and Recombinant Human MCP-2 / CCL8 protein (HA211228) as the standard. The reference range value is 15.6-1,000 pg/mL.

Storage Buffer: 1*PBS (pH7.4).

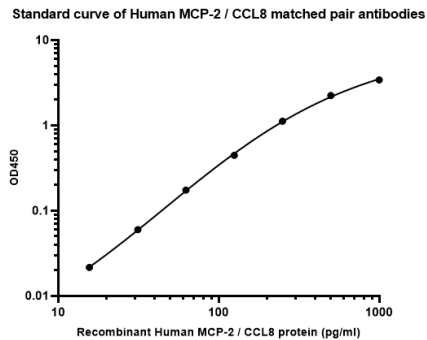
Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

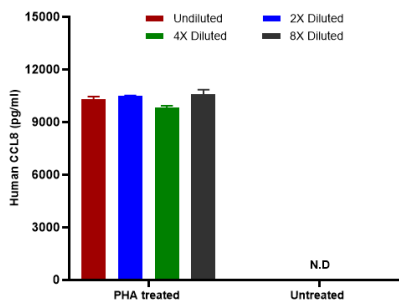
Fig1: Sandwich ELISA analysis of Human MCP-2 / CCL8 matched pair antibodies

Capture: HA725283, Human MCP-2 / CCL8 Rabbit mAb [PSH21-47]
Detector: HA725284, Human MCP-2 / CCL8 Rabbit mAb [PSH21-48]



Elisa assay was performed by coating wells of a 96-well plate with 50 μ l per well of capture antibody (HA725283) diluted in carbonate/bicarbonate buffer, at a concentration of 2 μ g/ml overnight at 4 $^{\circ}$ C. Wells of the plate were washed, blocked with 150 μ l 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human MCP-2 / CCL8 protein (HA211228) starting from 1,000 pg/ml to 15.6 pg/ml and detect antibody (HA725284, Biotin, 0.2 μ g/ml) for 1 hour at 30 $^{\circ}$ C with shaking. Then the plate was washed and incubated with 50 μ l per well of SA-HRP for 0.5 hour at 30 $^{\circ}$ C with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

Fig2: Interpolated concentrations of native CCL8 in PHA treated human PBMC supernatant.



Capture: HA725283, Human MCP-2 / CCL8 Rabbit mAb [PSH21-47]
Detector: HA725284, Human MCP-2 / CCL8 Rabbit mAb [PSH21-48]

The concentrations of CCL8 were measured in duplicates, interpolated from the CCL8 standard curve and corrected for sample dilution. Undiluted samples are human PBMC 5% treated with or without 10 ug/ml PHA for 5 days. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean CCL8 concentration was determined to be 10,262 pg/ml in PHA treated human PBMC supernatant.

Note: All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”.

Background References

1. Chavez B et al. Insights on the role of the chemokine CCL8 in pathology. Cell Signal. 2025 Oct
2. Chen S et al. Tumor-initiating cells escape tumor immunity via CCL8 from tumor-associated macrophages in mice. J Clin Invest. 2025 Jan

