Anti-Human CCL20/MIP-3 alpha Antibody [PSH12-32] - BSA and Azide free (Capture)

HA725010

Product Type: Recombinant Rabbit monoclonal IgG, primary antibodies

Species reactivity: Human

Applications: ELISA(Cap)

Clone number: PSH12-32

Description: Chemokine (C-C motif) ligand 20 (CCL20) or liver activation regulated chemokine (LARC) or Macrophage Inflammatory Protein-3 (MIP3A) is a small cytokine belonging to the CC chemokine family. It is strongly chemotactic for lymphocytes and weakly attracts neutrophils. CCL20 is implicated in the formation and function of mucosal lymphoid tissues via chemoattraction of lymphocytes and dendritic cells towards the epithelial cells surrounding these tissues. CCL20 elicits its effects on its target cells by binding and activating the chemokine receptor CCR6. Gene expression of CCL20 can be induced by microbial factors such as lipopolysaccharide (LPS), and inflammatory cytokines such as tumor necrosis factor and interferon-γ, and down-regulated by IL-10. CCL20 is expressed in several tissues with highest expression observed in peripheral blood lymphocytes, lymph nodes, liver, appendix, and fetal lung and lower levels in thymus, testis, prostate and gut. The gene for CCL20 (scya20) is located on chromosome 2 in humans.

Immunogen: Recombinant protein within Human CCL20/MIP-3 alpha aa 27-96 (HA211012).

Positive control: Recombinant Human CCL20/MIP-3 alpha protein (HA211012).

Subcellular location: Secreted.

Database links: SwissProt: P78556 Human

Recommended Dilutions:

ELISA(Cap) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH12-33] to Human CCL20/MIP-3 alpha antibody (Detector) (HA725011) and Recombinant Human CCL20/MIP-3 alpha protein (HA211012) as the standard. The reference range value is 15.6-2,000 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

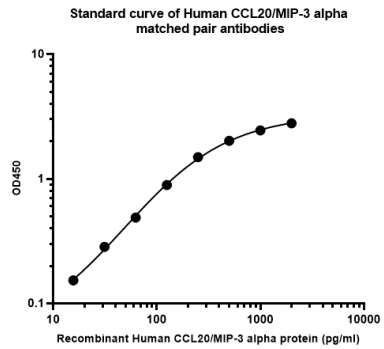

Fig1: Sandwich ELISA analysis of Human CCL20/MIP-3 alpha matched pair antibodies

Capture: HA725010, Human CCL20/MIP-3 alpha Rabbit mAb [PSH12-32]
Detector: HA725011, Human CCL20/MIP-3 alpha Rabbit mAb [PSH12-33]

Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody (HA725010) diluted in carbonate/bicarbonate buffer, at a concentration of 2ug/ml overnight at 4℃. Wells of the plate were washed, blocked with 150 µl 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human CCL20/MIP-3 alpha protein (HA211012) starting from 2000 pg/ml to 0 pg/ml and detect antibody (HA725011, Biotin, 0.2 µg/ml) for 1 hour at 30℃ with shaking. Then the plate was washed and incubated with 100 µl per well of SA-HRP for 0.5 hour at 30℃ 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.

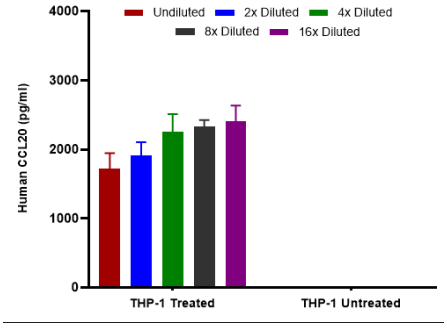

Fig2: Interpolated concentrations of native CCL20 in THP-1 supernatant treated or untreated with Hu-IFN-r and LPS for overnight.

Capture: HA725010, Human CCL20/MIP-3 alpha Rabbit mAb [PSH12-32]
Detector: HA725011, Human CCL20/MIP-3 alpha Rabbit mAb [PSH12-33]

Interpolated concentration of native CCL20 was measured in duplicate at different sample concentrations and interpolated from the CCL20 standard curves. Undiluted samples were 50% cell supernatant. The interpolated dilution factor corrected values were plotted (mean +/- SD, n=2). The mean CCL20 concentration was determined to be 2,126 pg/mL in neat THP-1 treated supernatant, undetectable in untreated THP-1 supernatant.

Background References

1. Kadomoto S et al. The CCL20-CCR6 Axis in Cancer Progression. Int J Mol Sci. 2020 Jul
2. Meitei HT et al. CCR6-CCL20 axis as a therapeutic target for autoimmune diseases. Autoimmun Rev. 2021 Jul

Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation