Anti-Human CXCL13 Antibody [PSH07-05] - BSA and Azide free (Capture)

HA722791

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Cap)
Molecular Wt:	Predicted band size: 12.7 kDa
Clone number:	PSH07-05

Description: B lymphocyte chemoattractant, independently cloned and named Angie, is an antimicrobial peptide and CXC chemokine strongly expressed in the follicles of the spleen, lymph nodes, and Peyer's patches. It preferentially promotes the migration of B lymphocytes (compared to T cells and macrophages), apparently by stimulating calcium influx into, and chemotaxis of, cells expressing Burkitt's lymphoma receptor 1 (BLR-1). It may therefore function in the homing of B lymphocytes to follicles. Chemotactic for B-lymphocytes but not for T-lymphocytes, monocytes and neutrophils. Does not induce calcium release in B-lymphocytes. Binds to BLR1/CXCR5.

Immunogen: Recombinant protein within Human CXCL13 aa 23-109.

Positive control: Recombinant Human CXCL13 protein (HA211065).

Subcellular location: Secreted.

Database links: SwissProt: O43927 Human

Recommended Dilutions:

ELISA(Cap) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH07-06] to Human CXCL13 antibody (Detector) (HA722792) or Rabbit monoclonal [PSH07-07] to Human CXCL13 antibody (Detector) (HA722794) and recombinant Human CXCL13 protein (HA211065) as the standard. The reference range value is 12.3-3000pg/ml.

Storage Buffer: 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

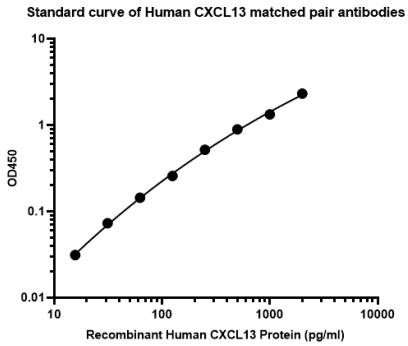

Fig1: Sandwich ELISA analysis of Human CXCL13 matched pair antibodies

Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody (HA722791) diluted in carbonate/bicarbonate buffer, at a concentration of 5 µg/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 human CXCL13 protein (HA211065) starting from 2000 pg/ml to 0 pg/ml and detect antibody (HA722792, Biotin, 0.3 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.

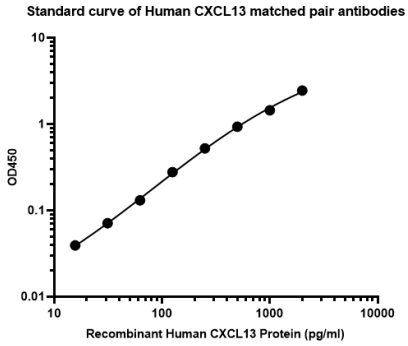

Fig2: Sandwich ELISA analysis of Human CXCL13 matched pair antibodies

Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody (HA722791) diluted in carbonate/bicarbonate buffer, at a concentration of 5 µg/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 human CXCL13 protein (HA211065) starting from 2000 pg/ml to 0 pg/ml and detect antibody (HA722794, Biotin, 0.3 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.

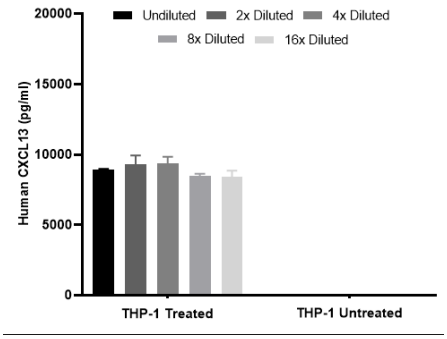

Fig3: Interpolated concentrations of native CXCL13 in human THP-1 supernatant treated or untreated with Hu-IFN-r and LPS for 24 hours.

Interpolated concentration of native CXCL13 was measured in duplicate at different sample concentrations and interpolated from the CXCL13 standard curves. Undiluted samples were 20% cell supernatant. The interpolated dilution factor corrected values were plotted (mean +/- SD, n=2). The mean CXCL13 concentration was determined to be 8,902 pg/mL in neat THP-1 treated supernatant, undetectable in untreated THP-1 supernatant.

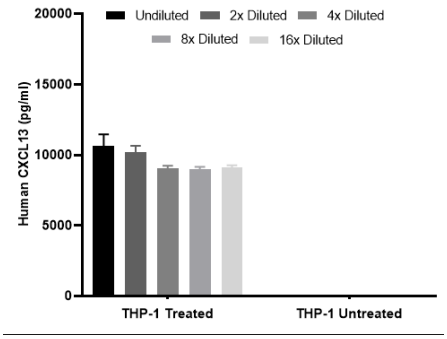

Fig4: Interpolated concentrations of native CXCL13 in human THP-1 supernatant treated or untreated with Hu-IFN-r and LPS for 24 hours.

Interpolated concentration of native CXCL13 was measured in duplicate at different sample concentrations and interpolated from the CXCL13 standard curves. Undiluted samples were 20% cell supernatant. The interpolated dilution factor corrected values were plotted (mean +/- SD, n=2). The mean CXCL13 concentration was determined to be 10,653 pg/mL in neat THP-1 treated supernatant, undetectable in untreated THP-1 supernatant.

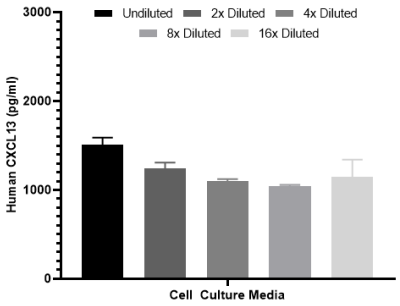

Fig5: Interpolated concentrations of spiked CXCL13 in human cell culture media samples.

The concentrations of CXCL13 were measured in duplicates, interpolated from the CXCL13 standard curves and corrected for sample dilution. Undiluted samples are as follows: cell culture media 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

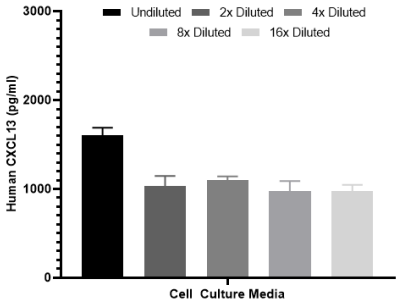

Fig6: Interpolated concentrations of spiked CXCL13 in human cell culture media samples.

The concentrations of CXCL13 were measured in duplicates, interpolated from the CXCL13 standard curves and corrected for sample dilution. Undiluted samples are as follows: cell culture media 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

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

Background References

1. Hu X.X., Zhou L.Y., Lin R.Y. The association between the serum concentration of CXC subfamily chemokine 13 and post-surgical clinical outcomes in cervical cancer patients. Eur Rev Med Pharmacol Sci 27:11635-11642 (2023)
2. Harada T., Kikushige Y., Miyamoto T., Uno K., Niiro H., Kawakami A., Koga T., Akashi K., Yoshizaki K. Peripheral helper-T-cell-derived CXCL13 is a crucial pathogenic factor in idiopathic multicentric Castleman disease. Nat Commun 14:6959-6959 (2023)