

Anti-Human IL-12B p40 Antibody [PSH03-04] - BSA and Azide free (Detector)

HA721934



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Dog
Applications:	ELISA(Det)
Clone number:	PSH03-04

Description: Associates with IL12B to form the IL-23 interleukin, an heterodimeric cytokine which functions in innate and adaptive immunity. IL-23 may constitute with IL-17 an acute response to infection in peripheral tissues. IL-23 binds to an heterodimeric receptor complex composed of IL12RB1 and IL23R, activates the Jak-Stat signaling cascade, stimulates memory rather than naive T-cells and promotes production of proinflammatory cytokines. IL-23 induces autoimmune inflammation and thus may be responsible for autoimmune inflammatory diseases and may be important for tumorigenesis.

Immunogen: Recombinant protein within human IL-12B p40 aa 23-328.

Positive control: Recombinant Human IL-23 protein (HA210909).

Subcellular location: Secreted.

Database links: SwissProt: P29460 Human

Recommended Dilutions:

ELISA(Det) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH03-03] to Human IL-23A (Capture) (HA721933) and recombinant Human IL-23 protein (HA210909) as the standard. The reference range value is 37-3,000 pg/mL.

Storage Buffer: PBS (pH7.4).

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

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

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Images

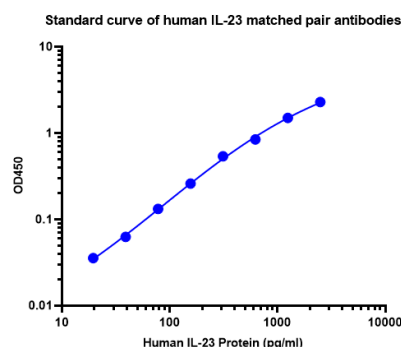


Fig1: Sandwich ELISA analysis of human IL-23 matched pair antibodies

Capture: HA721933, Human IL-23A Rabbit mAb [PSH03-03]

Detector: HA721934, Human IL-12B p40 Rabbit mAb [PSH03-04]

Elisa assay was performed by coating wells of a 96-well plate with 100 μ l per well of capture antibody (HA721933) diluted in carbonate/bicarbonate buffer, at a concentration of 4 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 IL-23 protein (HA210909) starting from 3000 pg/ml to 0 pg/ml and detect antibody (HA721934, Biotin, 0.2 μ g/ml) for 1 hour at 30 $^{\circ}$ C with shaking. Then the plate was washed and incubated with 100 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.

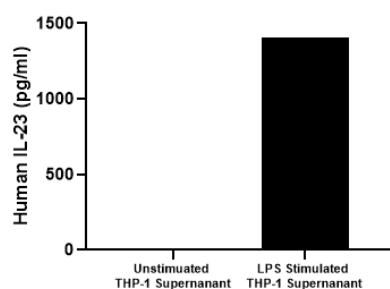


Fig2: Conditioned media was harvested after 16 hours. IL-23 was measured in 100% unstimulated and LPS stimulated THP-1 supernatant. The concentrations of IL-23 were interpolated from the IL-23 standard curves. The mean IL-23 concentration was determined to be 1407 pg/mL in LPS stimulated THP-1 supernatant. There was no detectable signal in unstimulated supernatant.

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

Background References

1. Oppmann B., Lesley R., Blom B., Timans J.C., Xu Y., Hunte B., Vega F., Yu N. Novel p19 protein engages IL-12p40 to form a cytokine, IL-23, with biological activities similar as well as distinct from IL-12. *Immunity* 13:715-725 (2000).
2. Sun R., Abraham C. IL23 Promotes Antimicrobial Pathways in Human Macrophages, Which Are Reduced With the IBD-Protective IL23R R381Q Variant. *Cell. Mol. Gastroenterol. Hepatol.* 10:673-697 (2020).

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