

Anti-Mouse IL-17A Antibody [PSH05-36] - BSA and Azide free (Detector)

HA722265



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Mouse
Applications:	ELISA(Det)
Molecular Wt:	Predicted band size: 18 kDa
Clone number:	PSH05-36

Description: Effector cytokine of innate and adaptive immune system involved in antimicrobial host defense and maintenance of tissue integrity. Signals via IL17RA-IL17RC heterodimeric receptor complex, triggering homotypic interaction of IL17RA and IL17RC chains with TRAF3IP2 adapter. This leads to downstream TRAF6-mediated activation of NF-kappa-B and MAPkinase pathways ultimately resulting in transcriptional activation of cytokines, chemokines, antimicrobial peptides and matrix metalloproteinases, with potential strong immune inflammation. Plays an important role in connecting T cell-mediated adaptive immunity and acute inflammatory response to destroy extracellular bacteria and fungi. As a signature effector cytokine of T-helper 17 cells (Th17), primarily induces neutrophil activation and recruitment at infection and inflammatory sites. In airway epithelium, mediates neutrophil chemotaxis via induction of CXCL1 and CXCL5 chemokines. In secondary lymphoid organs, contributes to germinal center formation by regulating the chemotactic response of B cells to CXCL12 and CXCL13, enhancing retention of B cells within the germinal centers, B cell somatic hypermutation rate and selection toward plasma cells. Effector cytokine of a subset of gamma-delta T cells that functions as part of an inflammatory circuit downstream IL1B, TLR2 and IL23A-IL12B to promote neutrophil recruitment for efficient bacterial clearance.

Immunogen: Recombinant protein within mouse IL-17A aa 26-158 (Q62386).

Positive control: Recombinant standard Mouse IL-17A protein (HA210791).

Subcellular location: Secreted.

Database links: SwissProt: Q62386 Mouse
Entrez Gene: 16171 Mouse

Recommended Dilutions:

ELISA(Det) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH05-35] to Mouse IL-17A (Capture) (HA722264) and recombinant standard Mouse IL-17A protein (HA210791). The reference range value is 9.9-800pg/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.

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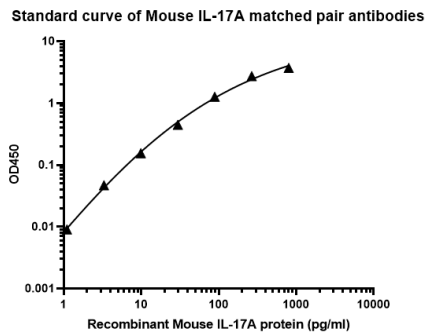
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Images

Fig1: Sandwich ELISA analysis of Mouse IL-17A matched pair antibodies

Elisa assay was performed by coating wells of a 96-well plate with 100 μ l per well of capture antibody (HA722264) 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 standard Mouse IL-17A protein (HA210791) starting from 800 pg/ml to 0 pg/ml and detect antibody (HA722265, 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.

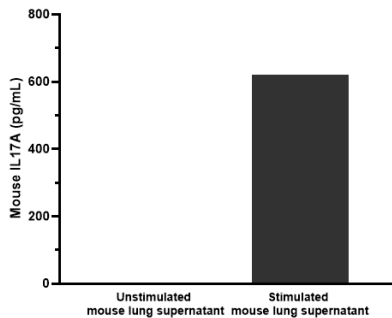


Fig2: Mouse lung were stimulated with 5 μ g/mL LPS and incubated for 6 days. The concentrations of IL17A were interpolated from the IL17A standard curves and corrected for sample dilution. Undiluted samples are LPS stimulated mouse lung supernatants 50% and unstimulated mouse lung supernatants 50%. The mean IL17A concentration was determined to be 621 pg/mL in LPS stimulated mouse lung supernatant and undetectable in the unstimulated mouse lung supernatant.

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

Background References

1. Wu M et al. Epithelium-derived IL17A Promotes Cigarette Smoke-induced Inflammation and Mucus Hyperproduction. *Am J Respir Cell Mol Biol.* 2021 Dec
2. Li Y et al. Neutrophils and IL17A mediate flagellar hook protein FlgE-induced mouse acute lung inflammation. *Cell Microbiol.* 2019 Mar

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