

## Anti-Mouse IL-21 Antibody [PSH04-75] - BSA and Azide free (Capture)

# HA723649



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Mouse
<b>Applications:</b>	ELISA(Cap)
<b>Clone number:</b>	PSH04-75

**Description:** Cytokine with immunoregulatory activity. May promote the transition between innate and adaptive immunity. Induces the production of IgG1 and IgG3 in B-cells. Implicated in the generation and maintenance of T follicular helper (Tfh) cells and the formation of germinal-centers. Together with IL6, control the early generation of Tfh cells and are critical for an effective antibody response to acute viral infection. May play a role in proliferation and maturation of natural killer (NK) cells in synergy with IL15. May regulate proliferation of mature B- and T-cells in response to activating stimuli. In synergy with IL15 and IL18 stimulates interferon gamma production in T-cells and NK cells. During T-cell mediated immune response may inhibit dendritic cells (DC) activation and maturation.

**Immunogen:** Recombinant protein within Mouse IL-21 aa 25-146 (HA210801).

**Positive control:** Recombinant Mouse IL-21 protein (HA210801).

**Subcellular location:** Secreted.

**Database links:** SwissProt: Q9ES17 Mouse

### Recommended Dilutions:

**ELISA(Cap)** Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH14-56] to Mouse IL-21 antibody (Detector) (HA723650) or Rabbit monoclonal [PSH14-57] to Mouse IL-21 antibody (Detector) (HA723652) and Recombinant Mouse IL-21 protein (HA210801) as the standard. The reference range value is 15.6-4,000 pg/mL.

**Storage Buffer:** 1\*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.

Orders:0086-571-88062880

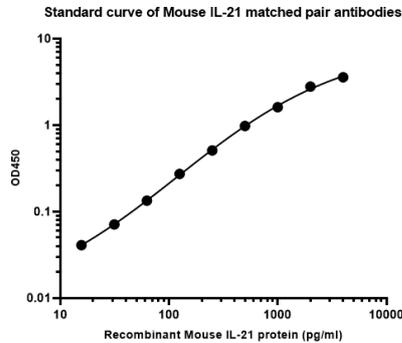
Technical:0086-571-89986345

Service mail:support@huabio.cn

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**Fig1:** Sandwich ELISA analysis of Mouse IL-21 matched pair antibodies

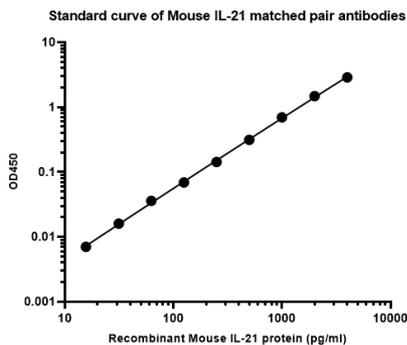
Capture: HA723649, Mouse IL-21 Rabbit mAb [PSH04-75]  
 Detector: HA723650, Mouse IL-21 Rabbit mAb [PSH14-56]



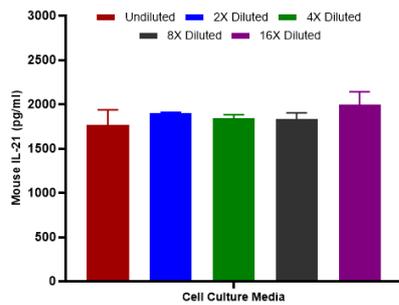
Elisa assay was performed by coating wells of a 96-well plate with 100  $\mu$ l per well of capture antibody (HA723649) diluted in carbonate/bicarbonate buffer, at a concentration of 2  $\mu$ g/mL overnight at 4°C. Wells of the plate were washed, blocked with 150  $\mu$ l 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted IL-21 protein starting from 4,000 pg/ml to 0 pg/ml and detect antibody (HA723650, Biotin, 0.2  $\mu$ g/ml) for 1 hour at 30°C with shaking. Then the plate was washed and incubated with 100  $\mu$ l per well of SA-HRP for 0.5 hour at 30°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:** Sandwich ELISA analysis of Mouse IL-21 matched pair antibodies

Capture: HA723649, Mouse IL-21 Rabbit mAb [PSH04-75]  
 Detector: HA723652, Mouse IL-21 Rabbit mAb [PSH14-57]



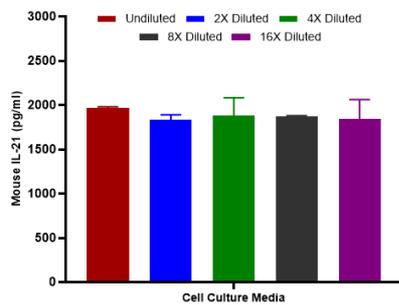
Elisa assay was performed by coating wells of a 96-well plate with 100  $\mu$ l per well of capture antibody (HA723649) diluted in carbonate/bicarbonate buffer, at a concentration of 2  $\mu$ g/mL overnight at 4°C. Wells of the plate were washed, blocked with 150  $\mu$ l 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Mouse IL-21 protein (HA210801) protein starting from 4,000 pg/ml to 0 pg/ml and detect antibody (HA723652, Biotin, 0.2  $\mu$ g/ml) for 1 hour at 30°C with shaking. Then the plate was washed and incubated with 100  $\mu$ l per well of SA-HRP for 0.5 hour at 30°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.



**Fig3:** Interpolated concentrations of spiked IL-21 in mouse cell culture media samples.

Capture: HA723649, Mouse IL-21 Rabbit mAb [PSH04-75]  
 Detector: HA723650, Mouse IL-21 Rabbit mAb [PSH14-56]

The concentrations of IL-21 were measured in duplicates, interpolated from the IL-21 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).



**Fig4:** Interpolated concentrations of spiked IL-21 in mouse cell culture media samples.

Capture: HA723649, Mouse IL-21 Rabbit mAb [PSH04-75]  
 Detector: HA723652, Mouse IL-21 Rabbit mAb [PSH14-57]

The concentrations of IL-21 were measured in duplicates, interpolated from the IL-21 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. Ren HM et al. New developments implicating IL-21 in autoimmune disease. J Autoimmun. 2021 Aug
2. Chang L et al. IL-21 induces pyroptosis of Treg cells via Akt-mTOR-NLRP3-caspase 1 axis in eosinophilic chronic rhinosinusitis. J Allergy Clin Immunol. 2023 Sep

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