Anti-Rat IL-4 Antibody [PSH04-22] - BSA and Azide free (Detector)

HA722105

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Rat
Applications:	ELISA(Det)
Molecular Wt:	Predicted band size: 16.2 kDa
Clone number:	PSH04-22

Description: The interleukin 4 (IL4, IL-4) is a cytokine that induces differentiation of naive helper T cells (Th0 cells) to Th2 cells. Upon activation by IL-4, Th2 cells subsequently produce additional IL-4 in a positive feedback loop. IL-4 is produced primarily by mast cells, Th2 cells, eosinophils and basophils. It is closely related and has functions similar to IL-13. Interleukin 4 has many biological roles, including the stimulation of activated B cell and T cell proliferation, and the differentiation of B cells into plasma cells. It is a key regulator in humoral and adaptive immunity. IL-4 induces B cell class switching to IgE, and up-regulates MHC class II production. IL-4 decreases the production of Th1 cells, macrophages, IFNγ, and dendritic cells IL-12. Overproduction of IL-4 is associated with allergies.

Immunogen: Recombinant protein within Rat IL-4 aa 25-147 (P20096).

Positive control: Recombinant Rat IL-4 protein (HA210759).

Subcellular location: Secreted.

Database links: SwissProt: P20096 Rat

Recommended Dilutions:

ELISA(Det) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH04-21] to Rat IL-4 (Capture) (HA722104) and recombinant standard Rat IL-4 protein (HA210759). The reference range value is 8.2-2000 pg/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

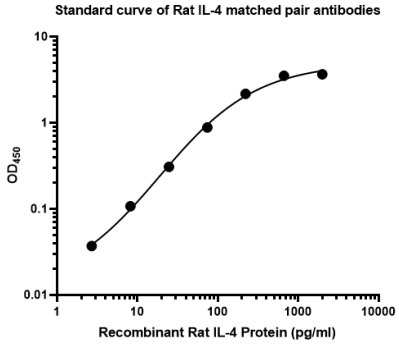

Fig1: Sandwich ELISA analysis of Rat IL-4 matched pair antibodies

Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody (HA722104) 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 Recombinant Rat IL-4 protein (HA210759) starting from 2000 pg/ml to 0 pg/ml and detect antibody (HA722105) (Biotin-conjugated, 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.

Background References

1. Zhang J et al. IL4-driven microglia modulate stress resilience through BDNF-dependent neurogenesis. Sci Adv. 2021 Mar
2. Arpa L et al. Distinct Responses to IL4 in Macrophages Mediated by JNK. Cells. 2023 Apr