HRP Conjugated Anti-Human IL-4 Antibody [PS00-66] - Detector

HA721295

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Det)
Molecular Wt:	Predicted band size: 17.5 kDa
Clone number:	PS00-66

Description: Cytokine secreted primarily by mast cells, T-cells, eosinophils, and basophils that plays a role in regulating antibody production, hematopoiesis and inflammation, and the development of effector T-cell responses. Induces the expression of class II MHC molecules on resting B-cells. Enhances both secretion and cell surface expression of IgE and IgG1. Regulates also the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes. Positively regulates IL31RA expression in macrophages. Stimulates autophagy in dendritic cells by interfering with mTORC1 signaling and through the induction of RUFY4. In addition, plays a critical role in higher functions of the normal brain, such as memory and learning. Upon binding to IL4, IL4R receptor dimerizes either with the common IL2R gamma chain/IL2RG to produce the type 1 signaling complex, located mainly on hematopoietic cells, or with the IL13RA1 to produce the type 2 complex, which is expressed also on nonhematopoietic cells. Engagement of both types of receptors initiates JAK3 and to a lower extend JAK1 phosphorylation leading to activation of the signal transducer and activator of transcription 6/STAT6.

Conjugate: HRP-conjugated

Immunogen: Recombinant full length protein.

Subcellular location: Secreted.

Database links: SwissProt: P05112 Human

Recommended Dilutions:

ELISA(Det) Use at an assay dependent concentration.

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: Advantages of Using rAbs：
Increased Reproducibility
Because recombinant antibody production involves sequencing the antibody light and heavy chains, recombinant antibody production allows researchers more control over the antigen.
Ease of Scalability and Continuous Supply
In vitro methods for producing antibodies are amenable to large-scale production, meaning antibody availability is unlikely to become a limiting factor. Recombinant antibodies can be produced in weeks as opposed to months.
Animal-Free Tech
Once the antibody-producing genes are isolated, high-throughput in vitro manufacture can be implemented. This eliminates the numerous ethical and animal welfare concerns commonly associated with traditional monoclonal antibody production.

Background References

1. Carr C., Aykent S., Kimack N.M., Levine A.D. Disulfide assignments in recombinant mouse and human interleukin 4. Biochemistry 30:1515-1523 (1991)
2. LaPorte S.L., Juo Z.S., Vaclavikova J., Colf L.A., Qi X., Heller N.M., Keegan A.D., Garcia K.C. Molecular and structural basis of cytokine receptor pleiotropy in the interleukin-4/13 system. Cell 132:259-272 (2008)