

Biotin Conjugated Anti-Rat IL-2 Antibody [PS01-89] - Detector

HA721614



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Rat
Applications:	ELISA(Det)
Clone number:	PS01-89

Description: Cytokine produced by activated CD4-positive helper T-cells and to a lesser extend activated CD8-positive T-cells and natural killer (NK) cells that plays pivotal roles in the immune response and tolerance. Binds to a receptor complex composed of either the high-affinity trimeric IL-2R (IL2RA/CD25, IL2RB/CD122 and IL2RG/CD132) or the low-affinity dimeric IL-2R (IL2RB and IL2RG). Interaction with the receptor leads to oligomerization and conformation changes in the IL-2R subunits resulting in downstream signaling starting with phosphorylation of JAK1 and JAK3. In turn, JAK1 and JAK3 phosphorylate the receptor to form a docking site leading to the phosphorylation of several substrates including STAT5. This process leads to activation of several pathways including STAT, phosphoinositide-3-kinase/PI3K and mitogen-activated protein kinase/MAPK pathways. Functions as a T-cell growth factor and can increase NK-cell cytolytic activity as well. Promotes strong proliferation of activated B-cells and subsequently immunoglobulin production. Plays a pivotal role in regulating the adaptive immune system by controlling the survival and proliferation of regulatory T-cells, which are required for the maintenance of immune tolerance. Moreover, participates in the differentiation and homeostasis of effector T-cell subsets, including Th1, Th2, Th17 as well as memory CD8-positive T-cells.

Conjugate:	Biotin-conjugated
Immunogen:	Recombinant full length protein rat IL-2.
Subcellular location:	Secreted.
Database links:	SwissProt: P17108 Rat Entrez Gene: 116562 Rat Unigene: 9871 Rat

Recommended Dilutions:
ELISA(Det)

1:1,000-1:2,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% ProClin300.

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

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

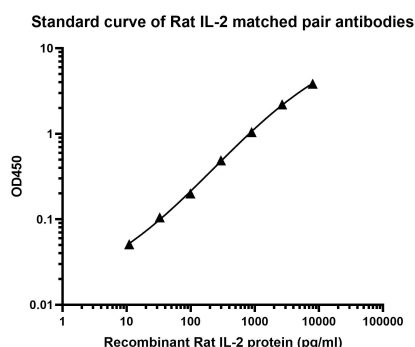
Technical:0086-571-89986345

Service mail:support@huabio.cn

华安生物
HUABIO
www.huabio.cn

Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

Fig1: Sandwich ELISA analysis of Rat IL-2 matched pair antibodies

Elisa assay was performed by coating wells of a 96-well plate with 100 μ l per well of capture antibody (HA721612) diluted in carbonate/bicarbonate buffer, at a concentration of 2 μ g/mL overnight at 4°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 Rat IL-2 protein starting from 2000 pg/ml to 0 pg/ml and detect antibody (HA721614) -Biotin (0.2 μ g/ml) for 1 hour at 30°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°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.

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

Background References

1. Miyazaki T., Kawahara A., Fujii H., Nakagawa Y., Minami Y., Liu Z.J., Oishi I., Silvennoinen O., Witthuhn B.A., Ihle J.N. Functional activation of Jak1 and Jak3 by selective association with IL-2 receptor subunits. *Science* 266:1045-1047 (1994)
2. Mingari M.C., Gerosa F., Carra G., Accolla R.S., Moretta A., Zubler R.H., Waldmann T.A., Moretta L. Human interleukin-2 promotes proliferation of activated B cells via surface receptors similar to those of activated T cells. *Nature* 312:641-643 (1984)

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

华安生物
HUABIO
www.huabio.cn

Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation