# **Anti-IL-6 Antibody**

### R1412-2

Molecular Wt:



**Product Type:** Rabbit polyclonal IgG, primary antibodies

Species reactivity: Human, Mouse, Rat WB, IF-Cell, IHC-P, FC Applications: Predicted band size: 24 kDa

**Description:** Cytokines play an essential role in the final differentiation of B-cells into Ig-secreting cells

> Involved in lymphocyte and monocyte differentiation. Interleukin-6 (IL-6) is a multifunctional cytokine with a wide variety of biological functions. IL-6 is implicated in the final differentiation of B-cells into immunoglobulin-secreting cells, myeloma and plasmacytoma growth, nerve cell differentiation, and activation of hepatocytes and mitogen-stimulated

helper T cells.

Immunogen: Recombinant protein within mouse IL6 aa 1-211.

Positive control: Recombinant murine Interleukin-6 protein, Siha, human spleen tissue.

Secreted. Subcellular location:

Database links: SwissProt: P05231 Human | P08505 Mouse

**Recommended Dilutions:** 

WB 1:1,000-1:2,000 IF-Cell 1:50-1:200 IHC-P 1:50-1:200 FC 1:50

Storage Buffer: 1\*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at  $4^{\circ}$ C. Store at  $+4^{\circ}$ C short term (1-2 weeks). It is recommended to aliquot into

single-use upon delivery. Store at -20°C long term.

Purity: Immunogen affinity purified.

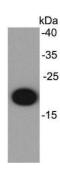
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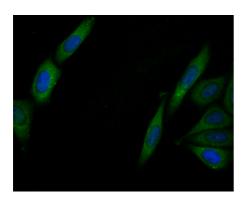
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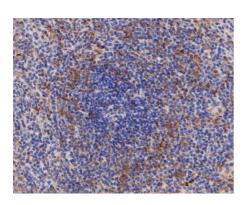
#### **Images**



**Fig1:** Western blot analysis of IL-6 on recombinant murine Interleukin-6 protein. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (R1412-2, 1/5,000) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.



**Fig2:** ICC staining of IL-6 in Siha cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (R1412-2, 1/100) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).



**Fig3:** Immunohistochemical analysis of paraffin-embedded human spleen tissue using anti-IL-6 antibody. The section was pretreated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH $_2$ O and PBS, and then probed with the primary antibody (R1412-2, 1/100) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

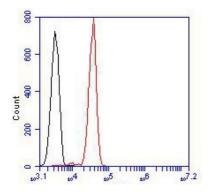


Fig4: Flow cytometric analysis of IL-6 was done on Siha cells. The cells were fixed, permeabilized and stained with the primary antibody (R1412-2, 1/50) (red). After incubation of the primary antibody at room temperature for an hour, the cells were stained with a Alexa Fluor 488-conjugated Goat anti-Rabbit IgG Secondary antibody at 1/1,000 dilution for 30 minutes.Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

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

#### **Background References**

- 1. "An IL6 promoter polymorphism is associated with a lifetime risk of development of Kaposi sarcoma in men infected with human immunodeficiency virus." Foster C.B., Lehrnbecher T., Samuels S., Stein S., Mol F., Metcalf J.A., Wyvill K., Steinberg S.M., Kovacs J., Blauvelt A., Yarchoan R., Chanock S.J.Blood 96:2562-2567(2000)
- 2. "A nucleotide variant in the promoter region of the interleukin-6 gene associated with decreased bone mineral density." Ota N., Nakajima T., Nakazawa I., Suzuki T., Hosoi T., Orimo H., Inoue S., Shirai Y., Emi M. J. Hum. Genet. 46:267-272(2001)
- 3. "Association of interleukin-6 promoter variant with bone mineral density in pre-menopausal women." Chung H.W., Seo J.-S., Hur S.E., Kim H.L., Kim J.Y., Jung J.H., Kim L.H., Park B.L., Shin H.D. J. Hum. Genet. 48:243-248(2003)