Anti-IL-6 Antibody [1-6]

EM1701-45

Product Type:	Mouse monoclonal IgG2b, primary antibodies
Species reactivity:	Mouse, Rat
Applications:	WB, IF-Cell
Molecular Wt:	24 kDa
Clone number:	1-6

Description: Interleukin-6, or IL-6, is a multifunctional protein, 212 amino acids in length, that plays critical roles in host defense, immune response and hematopoiesis. IL-6 is constitutively expressed by epidermal Langerhans cells and its expression is induced in stimulated keratinocytes. IL-6, IL-1β and TNFα act as endogenous pyrogens, regulating the fever response to bacterial invasion. The IL-6 receptor is a trimeric complex composed of an IL-6-specific α chain and a homodimer of the gp130 glycoprotein common to the IL-6, IL-11, CNTF, OSM and LIF receptors. Stimulation with IL-6 leads to gp130 homodimerization and the activation of associated kinases JAK1 and JAK2. Once activated, JAK1 and JAK2 phosphorylate Stat3, causing its nuclear translocation and transcription of Stat3-responsive genes. IL-6 has also been shown to activate the Ras/MAP kinase pathway, which regulates NFIL6 transcription.

Immunogen: Recombinant protein within Mouse IL-6 aa 1-211 / 211.

Positive control: Recombinant protein lysates, EL4.

Subcellular location: Secreted.

Database links: SwissProt: P08505 Mouse

Recommended Dilutions:

WB	1:500-1:2,000
IF-Cell	1:50-1:1,000

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein G affinity purified.

Images

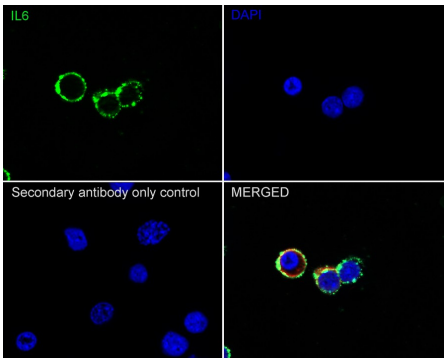

Fig1: Immunocytochemistry analysis of EL4 cells labeling IL-6 with Mouse anti-IL-6 antibody (EM1701-45) at 1/1,000 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Mouse anti-IL-6 antibody (EM1701-45) at 1/1,000 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Mouse IgG H&L (iFluor™ 488, HA1125) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

beta Tubulin (ET1602-4, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Rabbit IgG H&L (iFluor™ 594, HA1122) were used as the secondary antibody at 1/1,000 dilution.

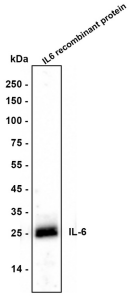

Fig2: Western blot analysis of IL-6 on mouse IL6 recombinant protein with Mouse anti-IL-6 antibody (EM1701-45) at 1/1,000 dilution.

Lysates/proteins at 15 µg/Lane.
Exposure time: 3 minutes; ECL: K1801

Blocking: 5% NFDM/TBST, 1 hour at room temperature
Primary antibody: EM1701-45, 1/1,000 in 5% NFDM/TBST, overnight at 4 ℃
Secondary antibody: Goat anti-Mouse IgG-HRP (HA1006), 1/100,000 in 5% NFDM/TBST, 1 hour at room temperature

Predicted band size: 24 kDa
Observed band size: 24 kDa

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

Background References

1. Luetticken C et al. Evidence for the importance of a positive charge and an alpha-helical structure of the C-terminus for biological activity of human IL-6. FEBS Lett 282:265-267 (1991).
2. van Damme J et al. Separation and comparison of two monokines with lymphocyte-activating factor activity: IL-1 beta and hybridoma growth factor (HGF). Identification of leukocyte-derived HGF as IL-6. J Immunol 140:1534-1541 (1988).