

Human IL-6 antibody

Catalog Number: ATGA0123

PRODUCT INFORMATION

Catalog number

ATGA0123

Clone No.

AT1H6

Product type

Monoclonal Antibody

UnitProt No.

P05231

NCBI Accession No.

NP_000591

Alternative Names

Interleukin-6, B-cell stimulatory factor 2, BSF-2, CTL differentiation factor, CDF, Hybridoma growth factor, Interferon beta-2, IFN-beta-2, IFNB2, HGF, HSF

PRODUCT SPECIFICATION

Antibody Host

Mouse

Reacts With

Human

Concentration

1mg/ml (determined by BCA assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen

Recombinant IL-6 (30-212aa) purified from E. coli

Isotype

IgG2a kappa

Purification Note

By protein-G affinity chromatography

Application

ELISA, WB, ICC/IF, FACS

Usage

The antibody has been tested by ELISA, Western blot, ICC/IF and FACS analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

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Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

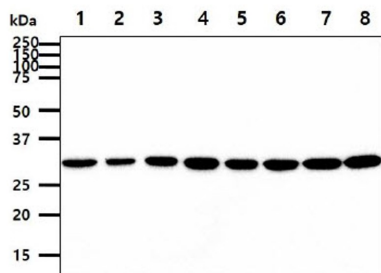
Interleukin-6, or IL-6, is a multifunctional protein, 212 amino acids in length that plays critical roles in host defense, immune response and hematopoiesis. IL-6 produced by T cells, macrophages, fibroblasts, endothelial and other cells. IL-6 induces proliferation or differentiation in many cell types including B cells, thymocytes and T cells. IL-6, in concert with TGF-Beta, is important for developing Th17 responses. 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.

General References

- Heinrich P.C., et al. (1998) *Biochem J.* 334: 297-314.
Heinrich P.C., et al. (1998) *Z Ernährungswiss.* 37: 43-49.
Jones S.A. (2005) *J Immunol.* 175: 3463-3468.

DATA

Western blot analysis (WB)



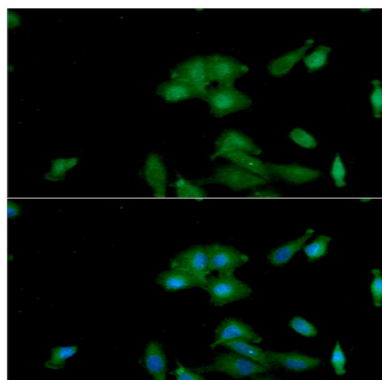
The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human IL-6 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

- Lane 1.: HeLa cell lysate
Lane 2.: HepG2 cell lysate
Lane 3.: Raw264.7 cell lysate
Lane 4.: PC3 cell lysate
Lane 5.: THP-1 cell lysate
Lane 6.: A549 cell lysate
Lane 7.: MCF7 cell lysate
Lane 8.: K562 cell lysate

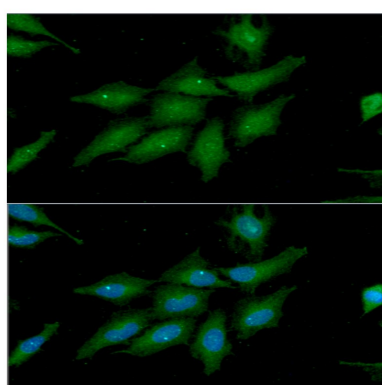
Immunocytochemistry/Immunofluorescence (ICC/IF)

Human IL-6 antibody

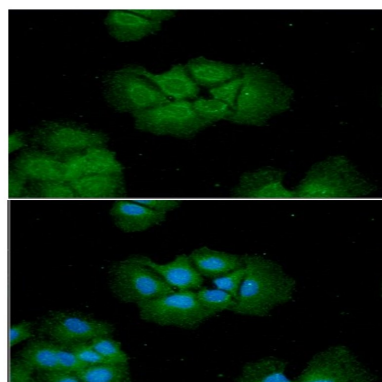
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ICC/IF analysis of IL-6 in A549 cells. The cell was stained with ATGA0123 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).



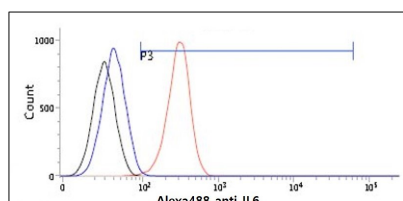
ICC/IF analysis of IL-6 in HeLa cells. The cell was stained with ATGA0123 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).



ICC/IF analysis of IL-6 in Hep3B cells. The cell was stained with ATGA0123 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

Flow cytometry (FACS)

Flow cytometry analysis of IL-6 in LNCaP cells. The cell was stained with ATGA0123 at 2-5ug for 1×10^6 cells (red). A Goat anti mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (blue), cells without incubation with primary and secondary antibody was used as the negative control (black).



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Flow cytometry analysis of IL-6 in HeLa cells. The cell was stained with ATGA0123 at 2-5ug for 1×10^6 cells (red). A Goat anti mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (dark gray), cells without incubation with primary and secondary antibody was used as the negative control (light gray).

