

Product datasheet

Anti-IL-6 antibody ab6672

★★★★★ 42 Abreviews 317 References 5 Images

Overview

Product name	Anti-IL-6 antibody
Description	Rabbit polyclonal to IL-6
Host species	Rabbit
Specificity	<p>ab6672 detects a band at 25 kDa in human lung tissue lysate and mouse spleen tissue lysate, however the signal in mouse tissue is significantly lower. It also binds strongly to a protein at ~55 kDa in human lung tissue extracts, which we believe represents a glycosylated form of IL6.</p> <p>ab6672 also detects several bands in human lung tissue lysate within the region of 30-40 kDa. These may represent heteromers of IL6. Please be aware that this product has low homology with the mouse and rat sequence of IL6 (Rat, 40%; Mouse 41%, UniProt blast) and we therefore cannot guarantee reactivity in these species.</p>
Tested applications	Suitable for: WB, ELISA, IHC-P, RIA, IP, IHC-Fr, Neutralising, ICC/IF
Species reactivity	Reacts with: Human, Pig
Immunogen	Recombinant full length protein corresponding to Human IL-6. Produced in E.coli. Database link: P05231
Positive control	<div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <p>Purchase matching WB positive control: Recombinant Human IL-6 protein ></p> </div> <p>WB: Recombinant Human IL6 protein (ab101044), lysate of 2 x 10⁶ endotoxin-stimulated human peripheral blood mononuclear cells (PBMC)(PBMC are stimulated for 24 hours with 1% (v/v) human serum plus 10 ng/mL E.coli LPS).</p>
General notes	IL-6 synonyms: plasmacytoma growth factor (PCT-GF),interferon-a-2 (IFN-a2), monocyte derived human B cellgrowth factor, B cell stimulating factor (BSF-2),hepatocyte stimulating factor (HSF), and interleukinhybridoma/plasmacytoma-1 (IL-HP1).

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Constituents: 0.42% Potassium phosphate, 0.87% Sodium chloride
Purity	Whole antiserum

Clonality Polyclonal

Isotype IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab6672** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★	1/500 - 1/2000.
ELISA		1/1000 - 1/5000.
IHC-P	★★★★★	1/400 - 1/800.
RIA		1/4000 - 1/8000.
IP		1/400 - 1/800.
IHC-Fr	★★★★☆	1/400 - 1/800.
Neutralising		1/400.
ICC/IF	★★★★☆	1/500. See Abreview.

Target

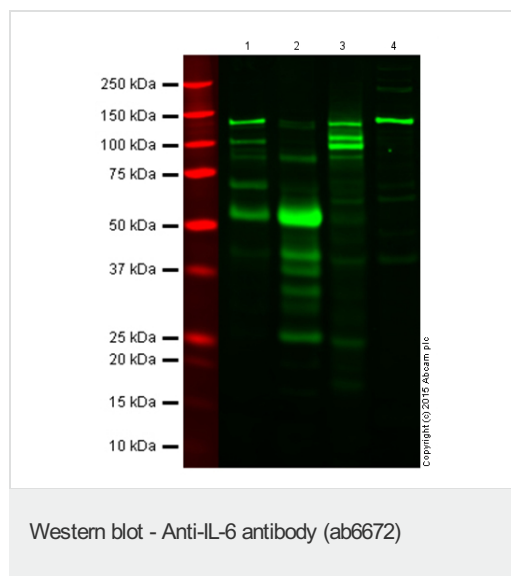
Function Cytokine with a wide variety of biological functions. It is a potent inducer of the acute phase response. Plays an essential role in the final differentiation of B-cells into Ig-secreting cells. Involved in lymphocyte and monocyte differentiation. It induces myeloma and plasmacytoma growth and induces nerve cells differentiation. Acts on B-cells, T-cells, hepatocytes, hematopoietic progenitor cells and cells of the CNS. Also acts as a myokine. It is discharged into the bloodstream after muscle contraction and acts to increase the breakdown of fats and to improve insulin resistance.

Involvement in disease Genetic variations in IL6 are associated with susceptibility to rheumatoid arthritis systemic juvenile (RASJ) [MIM:604302]. An inflammatory articular disorder with systemic-onset beginning before the age of 16. It represents a subgroup of juvenile arthritis associated with severe extraarticular features and occasionally fatal complications. During active phases of the disorder, patients display a typical daily spiking fever, an evanescent macular rash, lymphadenopathy, hepatosplenomegaly, serositis, myalgia and arthritis. Note=A IL6 promoter polymorphism is associated with a lifetime risk of development of Kaposi sarcoma in HIV-infected men.

Sequence similarities Belongs to the IL-6 superfamily.

Post-translational modifications N- and O-glycosylated.

Cellular localization Secreted.



All lanes : Anti-IL-6 antibody (ab6672) at 1/500 dilution

Lane 1 : Human spleen tissue lysate

Lane 2 : Human lung tissue lysate

Lane 3 : Mouse spleen tissue lysate

Lane 4 : Mouse lung tissue lysate

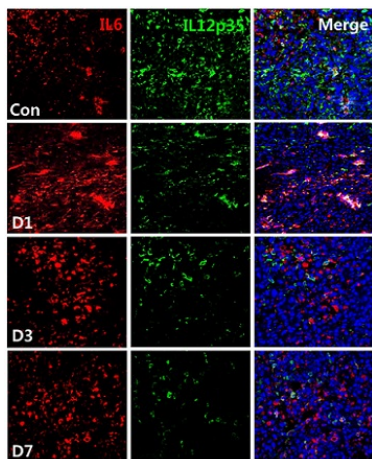
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Additional bands at: 25 kDa, 55 kDa (possible glycosylated form). We are unsure as to the identity of these extra bands.

Tissue lysates were denatured for 10-15 minutes at 90°C. ab6672 was incubated overnight at 4°C and the secondary antibody for 1 hour at RT.

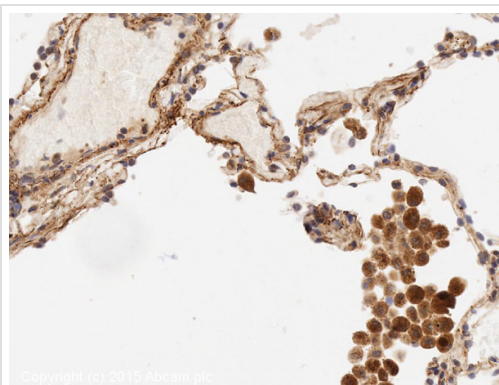
ab6672 detects a band at 25 kDa in Human lung tissue lysate and Mouse spleen tissue lysate, however the signal in mouse tissue is significantly lower. It also binds strongly to a protein at ~55 kDa in Human lung tissue extracts, which we believe represents a glycosylated form of IL6. ab6672 also detects several bands in Human lung tissue lysate within the region of 30-40 kDa. These may represent heteromers of IL6.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IL-6 antibody (ab6672)

Lee EJ et al. Radiation Inhibits Interleukin-12 Production via Inhibition of C-Rel through the Interleukin-6/ Signal Transducer and Activator of Transcription 3 Signaling Pathway in Dendritic Cells. PLoS One 11:e0146463 (2016).

IL6 (Red) and IL-12 (Green) were measured at 1, 3, and 7 days after 10 Gy irradiation of HCa-1 tumors to determine whether irradiation regulates IL-12 and IL6 expression in tumours. ab6672 was used to stain IL6 at 1/100 dilution in immunohistochemical analysis.

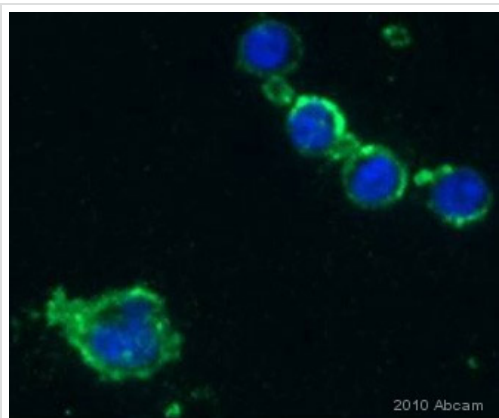


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IL-6 antibody (ab6672)

IHC image of IL6 staining in human lung formalin fixed paraffin embedded tissue section*, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab6672, 1/400, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

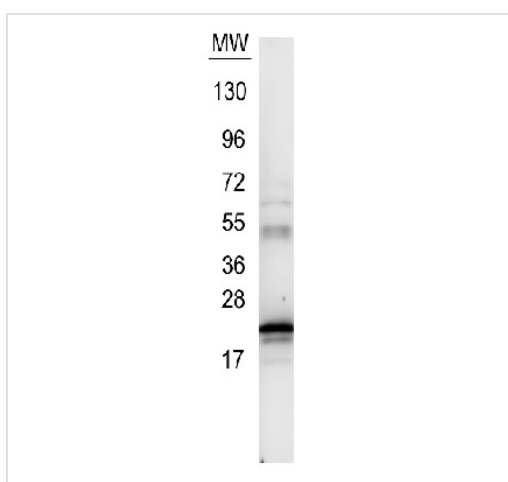
*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



Immunocytochemistry/ Immunofluorescence - Anti-IL-6 antibody (ab6672)

This image is courtesy of an anonymous Abreview

ab6672 staining IL6 in human WBC by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with acetone and blocked with 5% serum for 1 hour at 25°C. Samples were incubated with primary antibody (1/500 in PBS; 0.1% TX10; 1% Goat serum) for 16 hours at 4°C. An undiluted Alexa Fluor®488-conjugated Goat polyclonal to rabbit IgG was used as secondary antibody.



Western blot - Anti-IL-6 antibody (ab6672)

Anti-IL-6 antibody (ab6672) at 1/500 dilution + recombinant human IL-6

Secondary

conjugated anti-Rabbit IgG at 1/40000 dilution

Developed using the ECL technique.

Observed band size: 21 kDa

[why is the actual band size different from the predicted?](#)

4-20% Tris-Glycine gel.

The membrane was blocked for 30 minutes with 1% BSA-TBST.

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