**Product datasheet**

**Anti-IL-6 antibody ab9324**

★★★★★ 8 Abreviews  69 References  5 Images

**Overview**

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-IL-6 antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Mouse monoclonal to IL-6</td>
</tr>
<tr>
<td>Host species</td>
<td>Mouse</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: IHC-Fr, ICC/IF, Neutralising, Sandwich ELISA, IHC-P, WB</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Rat, Human</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Recombinant full length protein (Human).</td>
</tr>
<tr>
<td>Positive control</td>
<td>Purchase matching WB positive control: Recombinant Human IL-6 protein&gt;</td>
</tr>
</tbody>
</table>

Recombinant human IL6 protein (ab9627) can be used as a positive control in WB. IHC-P: FFPE Human spleen tissue sections

**Properties**

<table>
<thead>
<tr>
<th>Form</th>
<th>Lyophilised: Reconstitute with 500μl of sterile water. Please note that if you receive this product in liquid form it has already been reconstituted as described and no further reconstitution is necessary.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purity</td>
<td>Protein A purified</td>
</tr>
<tr>
<td>Clonality</td>
<td>Monoclonal</td>
</tr>
<tr>
<td>Isotype</td>
<td>IgG2a</td>
</tr>
</tbody>
</table>

**Applications**

Our **Abpromise guarantee** covers the use of **ab9324** in the following tested applications.

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

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHC-Fr</td>
<td>★★★★★</td>
<td>1/1000.</td>
</tr>
</tbody>
</table>
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 cell 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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>Neutralising</td>
<td></td>
<td>Use at an assay dependent concentration. To yield one-half maximal inhibition (ND50) of the biological activity of hIL-6 (0.5 ng/ml), a concentration of 19.0-23.0 µg/ml of this antibody is required.</td>
</tr>
<tr>
<td>Sandwich ELISA</td>
<td></td>
<td>Use at an assay dependent concentration. In a sandwich ELISA (assuming 100µl/well), a concentration of 4.0-8.0 µg/ml of this antibody will detect at least 500 pg/ml of recombinant human IL-6 when used with Rabbit polyclonal to IL6 (Biotin) (ab84251) as the detection antibody at a concentration of approximately 0.5-1.0 µg/ml.</td>
</tr>
<tr>
<td>IHC-P</td>
<td></td>
<td>Use a concentration of 0.125 µg/ml.</td>
</tr>
<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 0.2 - 0.4 µg/ml. Used in conjunction with compatible secondary reagents, the detection limit for recombinant human IL-6 is 0.5-1.0 ng/lane, under reducing or non-reducing conditions.</td>
</tr>
</tbody>
</table>
**Western blot - Anti-IL-6 antibody (ab9324)**

**All lanes**: Anti-IL-6 antibody (ab9324) at 1/2000 dilution

**Lane 1**: Human Spleen  
**Lane 2**: Human Lung  
**Lane 3**: Rat Spleen  
**Lane 4**: Rat Lung

Lysates/proteins at 20 μg per lane.

**Secondary**  
**All lanes**: 800CW Goat Anti-Mouse IgG at 1/10000 dilution

Performed under reducing conditions.

**Observed band size**: 17,25 kDa  
**why is the actual band size different from the predicted?**  
**Additional bands at**: 50 kDa (possible multimer)

This antibody was raised against an immunogen that is predicted to recognize the glycosylated form of IL6 as well as the IL6delta4 splice variant. The predicted molecular weights are 25 kDa and 17 kDa respectively. The band observed at 50 kDa may represent multimers of IL6 as reported in the literature.
IHC image of IL6 staining in human spleen 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 ab9324, 1in250 dilution, 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

Immunohistochemical analysis of PFA-fixed frozen murine neural tissue sections, labelling IL6 with ab9324 at a dilution of 1/1000 incubated for 24 hours at 4°C in 0.1M PBST with 10% donkey serum. Permeabilization was with 0.1M PBS and 3% Triton X. Blocking was with 10% serum incubated for 1 hour at 24°C. Secondary was a mouse monoclonal Alexa Fluor® 568 conjugate at 1/1000.

ab9324 staining IL6 in human cervical squamous cell carcinoma tissue section by Immunohistochemistry (Formalin/PFA fixed paraffin-embedded sections). Tissue underwent heat mediated antigen retrieval in sodium citrate buffer (pH 6.0). The primary antibody was used at 0.125 µg/ml and incubated with sample at 4°C overnight. A HRP-labeled polymer detection system was used with a DAB chromogen.
ICC/IF image of IL6 staining (ab9324) in rat primary microglial cell culture. The sections were incubated in 10% serum to block non-specific protein-protein interactions and in 0.3% triton X in 0.1% PBS for 1h to permeabilise the cells. The sections were then incubated with ab9324 (1:1000) overnight at +4°C, followed by Alexa 568 conjugated secondary antibody. Red staining of the cytosol was observed.

Please note: All products are “FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES”

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors