Product Datasheet

IL-6 Antibody
NB600-1131

Unit Size: 0.2 ml
Store at -20°C. Avoid freeze-thaw cycles.

Publications: 15
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Updated 10/10/2018 v.20.1

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# IL-6 Antibody

## Product Information

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Size</td>
<td>0.2 ml</td>
</tr>
<tr>
<td>Concentration</td>
<td>This product is unpurified. The exact concentration of antibody is not quantifiable.</td>
</tr>
<tr>
<td>Storage</td>
<td>Store at -20°C. Avoid freeze-thaw cycles.</td>
</tr>
<tr>
<td>Clonality</td>
<td>Polyclonal</td>
</tr>
<tr>
<td>Preservative</td>
<td>No Preservative</td>
</tr>
<tr>
<td>Isotype</td>
<td>Serum</td>
</tr>
<tr>
<td>Purity</td>
<td>Unpurified</td>
</tr>
<tr>
<td>Buffer</td>
<td>0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2</td>
</tr>
<tr>
<td>Target Molecular Weight</td>
<td>24 kDa</td>
</tr>
</tbody>
</table>

## Product Description

### Host
- Rabbit

### Gene ID
- 3569

### Gene Symbol
- IL6

### Species
- Human, Mouse, Rat

### Reactivity Notes
- Cross-reactivity reported in scientific literature: Mouse - PMID 23015436; Rat - PMID 25058444

### Specificity/Sensitivity
- This antiserum detects recombinant and native IL-6 present in body fluids and cell supernatants in various assays (ie. IL-1 stimulated IL-6 production from fibroblasts). In Western blot analysis of natural cell products or human body fluids, multiple bands of IL-6 will appear due to the variable amount of glycosylation on the molecule. The antiserum is also useful for neutralization of human of IL-6 activity in bioassays. For neutralization, incubate the sample with a 1:400 dilution of the antiserum for at least 4 hours before being tested. A control of similarly diluted normal rabbit IgG (heat inactivated) is recommended. In neutralization experiments in vitro, this antibody does not result in enhanced activity of IL-6. However, because antibodies to IL-6 may act as a soluble receptor in vivo, some antibodies to IL-6 act as carriers and enhance IL-6 activity.

### Immunogen
- This whole rabbit serum was prepared by repeated immunizations with recombinant human IL-6 produced in E.coli.

## Product Application Details

### Applications
- Western Blot, ELISA, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation

### Recommended Dilutions

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www.novusbio.com  technical@novusbio.com
This antiseraum against IL-6 has been tested for use in neutralizations, ELISA, immuno-histochemistry, radioimmunoassay, immunoprecipitation and immunoblotting. Reactivity in other immunoassays is unknown. Use in Immunocytochemistry/immunofluorescence reported in scientific literature (PMID: 29422647). For immunoblotting use the supernatants or lysates of 2 x 10^6 endotoxin-stimulated human peripheral blood mononuclear cells. PBMC are stimulated for 24 hours with 1% human serum plus 10 ng/mL E.coli LPS. For immunohistochemistry either paraffin fix or cryofix tissue. For immunoprecipitation, pre-clearing with a non-specific rabbit IgG is helpful - reduce background.

**Images**

Western Blot: IL-6 Antibody [NB600-1131] - Western Blot: IL-6 Antibody [HRP] [NBP1-42762] - Lane 1: Human IL-6. Lane 2: none. Load: 50 ng per lane. Primary antibody: none. Secondary antibody: Peroxidase Human IL-6 secondary antibody at 1:1,000 for 60 min at RT. Block: incubated with blocking buffer for 30 min at RT. Predicted/Observed size: 20 kDa for Human IL-6. Other band(s): none. Image using the HRP form of this antibody.

Western Blot: IL-6 Antibody [NB600-1131] - Protein was resolved on a 4-20% Tris-Glycine gel by SDS-PAGE and transferred onto nitrocellulose. The blot shows detection of a band 21 kDa in size corresponding to anti-IL6 antibody. Molecular weight markers are also shown (MW). After transfer, the membrane was blocked for 30 minutes with 1% BSA-TBST. Detection occurred using peroxidase conjugated anti-Rabbit IgG secondary antibody diluted 1:40,000 in blocking buffer for 30 min at RT followed by reaction with FemtoMax chemiluminescent substrate.
Publications

Gorth DJ, Shapiro IM, Risbud MV. Transgenic mice overexpressing human TNF-a experience early onset spontaneous intervertebral disc herniation in the absence of overt degeneration. Cell Death Dis Dec 18 2018 12:00AM [PMID: 30584238] (ICC/IF, Mouse)

Kaito T, Morimoto T, Mori Y et al. BMP-2/7 heterodimer strongly induces bone regeneration in the absence of increased soft tissue inflammation. Spine J 2018 Jan [PMID: 28735764]

Wang Q, He Z, Huang M et al. Vascular niche IL-6 induces alternative macrophage activation in glioblastoma through HIF-2α Nat Commun 2018 Feb 08 [PMID: 29422647] (IHC, Mouse)


Details:
TLR4 Inhibitor Peptide Set was used for functional assays in experiments involving human first-trimester trophoblast cells (Sw.71), isolated from a normal 7-week placenta. The cells were stimulated with either advanced glycation end products/AGEs or high-mobility group box-1/HMG1 in the absence or presence of either RAGE antagonist FPS-XM1 or TLR4 inhibitor peptides.


Details:
IL6 antibody used in IHC-P for detecting the inflammation of the gingival connective tissue of Rats inoculated or not with Porphyromonas gingivalis GroEL (inoculated into rat gingiva) - Figure 5B.

More publications at http://www.novusbio.com/NB600-1131
Procedures

Immunohistochemistry-Paraffin Protocol Specific for NB600-1131: IL6 Antibody (NB600-1131)

Materials

1) 1 Phosphate buffered saline (pH 7.6): NaCl 137mmol/L, KCl 2.7mmol/L, Na2HPO4 4.3mmol/L, KH2PO4 1.4 mmol/L
2) Citrate buffer, 0.01 M, pH6.0, Sodium Citrate 3g, Citric acid 0.4g
3) 3% Hydrogen peroxide
4) Primary antibody
5) Blocking serum (normal serum)
6) Biotinylated secondary antibody
7) DAB staining kit

Methods

1. Dewax and hydration of slides using xylene and EtOH:
   Dry slides for 20 min in a 60 C oven
   Add Xylene, 2 x 10 min
   100%, 95%, 80%, and 70% EtOH, 5 min each EtOH concentration
   Rinse in PBS, 5’

2 Antigen retrieval method (only for paraffin slides)
1a. High-pressure antigen retrieval procedure (recommended method)
   Place slides in a glass slide holder (ensure that the slide holder is completely filled with slides, slides without sections if necessary, to ensure even heating. The entire slide holder is immersed in 1000 ml of Citrate buffer (0.01M, pH6.0) within a pressure cooker
   Once steam is produced, and ONLY when steam is visible, from the pressure cooker (usually 15-20 min), the required high-pressure will have been reached, and slides will be incubated for 2 min.
   Turn off heat, and allow buffer and slides to cool to room temperature
   Slides are then rinsed in PBS for 5 minutes
2. Add 3% hydrogen peroxide solution, 10’at RT, then PBS, 3X5’
3. Normal blocking serum, 20’at RT
4. Incubate with Primary Ab, 4C overnight or 1.5 hours at 37C
5. Rinse with PBS, 3 X 5’ each rinse
6. Add Biotin-conjugated second antibody, 10’at RT
7. Rinse with PBS, 3 X 5’ each rinse
8. Add Streptavidin-Peroxidase, 10’at RT
9. Rinse with PBS, 3 X 5’ each rinse
10. Staining with DAB solution, 2-5’under microscope
11. Stop the reaction by washing in tap water
12. Counterstain in Haematoxylin for 3-5 minutes
13. 75%, 80%, 95% and 100% ethanol, 5x2’, xylene 2 x 10’

www.novusbio.com  technical@novusbio.com
Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
novus@novusbio.com

Novus Biologicals Canada
461 North Service Road West, Unit B37
Oakville, ON L6M 2V5
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada@novusbio.com

Novus Biologicals Europe
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: technical@novusbio.com
Orders: orders@novusbio.com
General: novus@novusbio.com

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<tr>
<td>NBL1-11962</td>
<td>IL-6 Overexpression Lysate</td>
</tr>
<tr>
<td>HAF008</td>
<td>Goat anti-Rabbit IgG Secondary Antibody [HRP (Horseradish Peroxidase)]</td>
</tr>
<tr>
<td>NB7156</td>
<td>Goat anti-Rabbit IgG (H+L) Secondary Antibody</td>
</tr>
<tr>
<td>NBP2-34901-5ug</td>
<td>Recombinant Human IL-6 Protein</td>
</tr>
</tbody>
</table>

Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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