

## Product datasheet

### Anti-IL-1 alpha antibody [EPR25263-3] ab300501

Recombinant RabMAb

★★★★★ [1 Abreviews](#) [2 References](#) [7 Images](#)

#### Overview

<b>Product name</b>	Anti-IL-1 alpha antibody [EPR25263-3]
<b>Description</b>	Rabbit monoclonal [EPR25263-3] to IL-1 alpha
<b>Host species</b>	Rabbit
<b>Specificity</b>	Human species reactivity is recommended based on IHC results, we do not guarantee human species reactivity in WB.
<b>Tested applications</b>	<b>Suitable for:</b> WB, ICC/IF, IHC-P <b>Unsuitable for:</b> Flow Cyt (Intra) or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human <b>Does not react with:</b> Rat
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: RAW264.7 treated with 10µg/ml lipopolysaccharide (LPS) for 7 hours, whole cell lysate IHC-P: Mouse lung treated with lipopolysaccharides (1 µg/ml) for 16 h in vitro, human colon, and human colon cancer. ICC/IF: RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) treated with 10 ug/ml lipopolysaccharide
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide

	Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR25263-3
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab300501 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

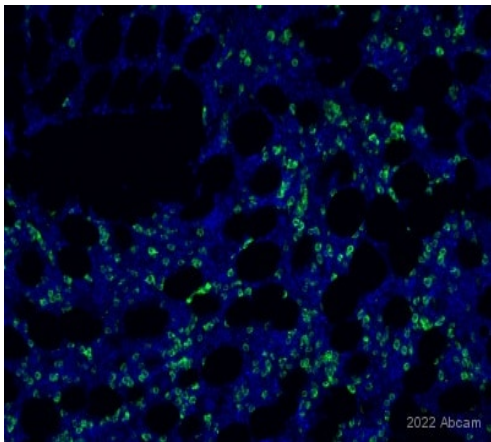
Application	Abreviews	Notes
<b>WB</b>		1/1000. Detects a band of approximately 31 kDa (predicted molecular weight: 31 kDa). Human species reactivity is recommended based on IHC results, we do not guarantee human species reactivity in WB.
<b>ICC/IF</b>		1/50.
<b>IHC-P</b>	★★★★★ (1)	1/5000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

**Application notes** Is unsuitable for Flow Cyt (Intra) or IP.

## Target

<b>Function</b>	Produced by activated macrophages, IL-1 stimulates thymocyte proliferation by inducing IL-2 release, B-cell maturation and proliferation, and fibroblast growth factor activity. IL-1 proteins are involved in the inflammatory response, being identified as endogenous pyrogens, and are reported to stimulate the release of prostaglandin and collagenase from synovial cells.
<b>Sequence similarities</b>	Belongs to the IL-1 family.
<b>Domain</b>	The similarity among the IL-1 precursors suggests that the amino ends of these proteins serve some as yet undefined function.
<b>Cellular localization</b>	Secreted. The lack of a specific hydrophobic segment in the precursor sequence suggests that IL-1 is released by damaged cells or is secreted by a mechanism differing from that used for other secretory proteins.

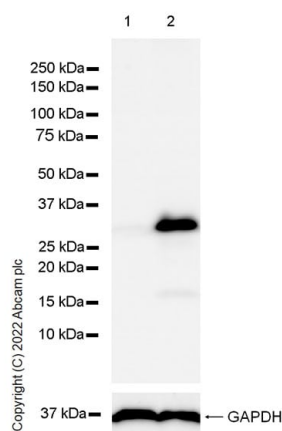
## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IL-1 alpha antibody [EPR25263-3] (ab300501)

This image is courtesy of an Abreview submitted by Natalie Papazian

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of paraformaldehyde-fixed human bone marrow tissue staining with ab at 1/100 dilution. Secondary antibody was Alexa Fluor® 488 Donkey anti-Rabbit IgG (H+L) at 1/200 dilution. Samples were incubated with the primary antibody with PBS +2% normal human serum for 16 hours at 4°C. Blocking was done using 5% serum for 1 hour at room temperature. Heat mediated antigen retrieval with EDTA 1mM PH8.



Western blot - Anti-IL-1 alpha antibody [EPR25263-3] (AB300501)

**All lanes :** Anti-IL-1 alpha antibody [EPR25263-3] (ab300501) at 1/1000 dilution

**Lane 1 :** Untreated RAW264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate

**Lane 2 :** RAW264.7 treated with 10µg/ml lipopolysaccharide (LPS) for 7 hours, whole cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

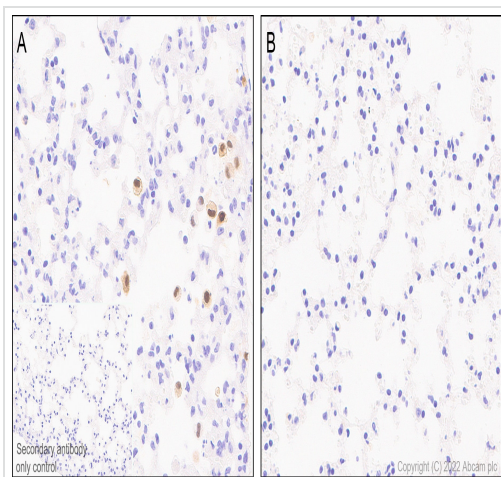
**Predicted band size:** 31 kDa

**Observed band size:** 31 kDa

**Exposure time:** 15 seconds

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

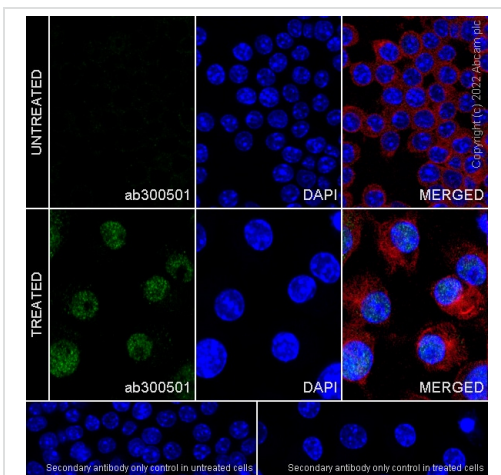
The expression level of IL-1 alpha was upregulated by LPS stimulation (PMID: 25870118).



Immunohistochemical analysis of paraffin-embedded A: Mouse lung treated with lipopolysaccharides (1 µg/ml) for 16 h in vitro. B: Untreated mouse lung labelling IL-1 alpha with ab300501 at 1/5000 dilution followed by a ready to use LeicaDS9800 (BOND™ Polymer Refine Detection). Positive staining on mouse lung induced by LPS (A) and no staining on untreated mouse lung (B). The section was incubated with ab300501 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS was used instead of primary antibody followed by ready to use secondary antibody LeicaDS9800 (BOND™ Polymer Refine Detection).

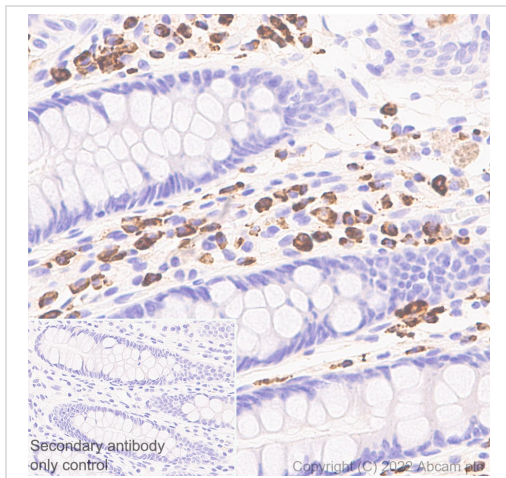
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins is used.



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized treated or untreated with 10 µg/ml lipopolysaccharide for 24h RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate labeling IL-1 alpha with ab300501 at 1/50 dilution, followed by (**ab150081**) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed secondary antibody at 1/1000 dilution (green). Confocal image showing increased nuclear staining in Raw 264.7 cells treated with lipopolysaccharide (10 µg/ml) for 24 h (PMID:25870118). The nuclear counter stain is DAPI (blue).

Tubulin is detected with Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594, **ab195889**) at 1/200 dilution (red).

Secondary antibody only controls: PBS was used instead of primary antibody in lipopolysacchride treated or untreated for 24h RAW 264.7 followed by preadsorbed (**ab150081**) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution and nuclear stained with DAPI.

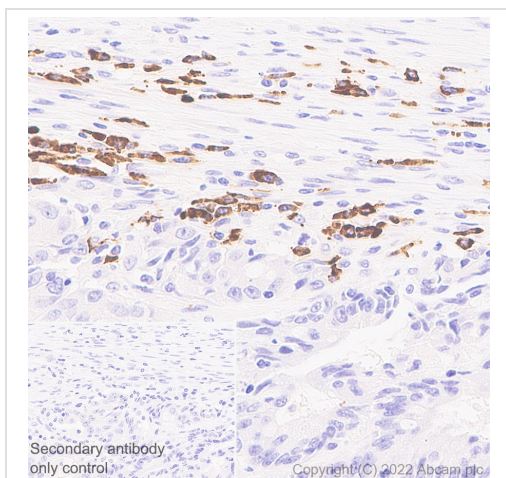


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IL-1 alpha antibody [EPR25263-3] (AB300501)

Immunohistochemical analysis of paraffin-embedded human colon tissue labelling IL-1 alpha with ab300501 at 1/5000 dilution followed by a ready to use LeicaDS9800 (BOND™ Polymer Refine Detection). Cytoplasmic staining on immune cells of human colon is observed. The section was incubated with ab300501 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS was used instead of primary antibody followed by ready to use secondary antibody LeicaDS9800 (BOND™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins is used.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IL-1 alpha antibody [EPR25263-3] (AB300501)

Immunohistochemical analysis of paraffin-embedded human colon cancer tissue labelling IL-1 alpha with ab300501 at 1/5000 dilution followed by a ready to use LeicaDS9800 (BOND™ Polymer Refine Detection). Cytoplasmic staining on immune cells of human colon cancer is observed. The section was incubated with ab300501 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS was used instead of primary antibody followed by ready to use secondary antibody LeicaDS9800 (BOND™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins is used.

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-IL-1 alpha antibody [EPR25263-3] (AB300501)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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