abcam

Product datasheet

Anti-IL-27-A antibody ab118910

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Overview

Product name Anti-IL-27-A antibody

Description Rabbit polyclonal to IL-27-A

Host species Rabbit

Specificity ab118910 recognize IL27-A (NP 663634).

Tested applications Suitable for: WB, IHC-P

Species reactivity Reacts with: Human

Predicted to work with: Mouse

Immunogen Synthetic peptide corresponding to Human IL-27-A (internal sequence) conjugated to keyhole

limpet haemocyanin. Corresponds to 14 amino acids near the center of Human IL27-A.

Database link: NP_663634

Positive control Daudi lysate, Human Spleen Neutrophils tissue

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

Properties

Form Liquid

Storage instructions Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Storage buffer pH: 7.4

Preservative: 0.02% Sodium azide

Constituent: 99% PBS

Purity Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

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Applications

The Abpromise guarantee

Our Abpromise guarantee covers the use of ab118910 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		Use a concentration of 2 - 4 µg/ml. Predicted molecular weight: 27 kDa.
IHC-P		Use a concentration of 5 μ g/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

Function

Cytokine with pro- and anti-inflammatory properties, that can regulate T helper cell development, suppress T-cell proliferation, stimulate cytotoxic T cell activity, induce isotype switching in B-cells, and that has diverse effects on innate immune cells. Among its target cells are CD4 T helper cells which can differentiate in type 1 effector cells (TH1), type 2 effector cells (TH2) and IL17 producing helper T-cells (TH17). It drives rapid clonal expansion of naive but not memory CD4 T-cells. It also strongly synergizes with IL-12 to trigger interferon-gamma/IFN-gamma production of naive CD4 Tcells, binds to the cytokine receptor WSX-1/TCCR which appears to be required but not sufficient for IL-27-mediated signal transduction. IL-27 potentiate the early phase of TH1 response and suppress TH2 and TH17 differentiation. It induces the differentiation of TH1 cells via two distinct pathways, p38 MAPK/TBX21- and ICAM1/ITGAL/ERK-dependent pathways. It also induces STAT1, STAT3, STAT4 and STAT5 phosphorylation and activates TBX21/T-Bet via STAT1 with resulting IL12RB2 up-regulation, an event crucial to TH1 cell commitment. It suppresses the expression of GATA3, the inhibitor TH1 cells development. In CD8 T-cells, it activates STATs as well as GZMB. IL-27 reveals to be a potent inhibitor of TH17 cell development and of IL-17 production. Indeed IL-27 subunit p28 alone is also able to inhibit the production of IL17 by CD4 and CD8 T-cells. While IL-27 suppressed the development of proinflammatory Th17 cells via STAT1, it inhibits the development of anti-inflammatory inducible regulatory T-cells, iTreg, independently of STAT1. IL-27 has also an effect on cytokine production, it suppresses proinflammatory cytokine production such as IL2, IL4, IL5 and IL6 and activates suppressors of cytokine signaling such as SOCS1 and SOCS3. Apart from suppression of cytokine production, L-27 also antagonizes the effects of some cytokines such as L6 through direct effects on T cells. Another important role of IL-27 is its antitumor activity as well as its antiangiogenic activity with activation of production of antiangiogenic chemokines such as IP-10/CXCL10 and MIG/CXCL9. In vein endothelial cells, it induces IRF1/interferon regulatory factor 1 and increase the expression of MHC class II transactivator/CIITA with resulting up-regulation of major histocompatibility complex class II. IL-27 also demonstrates antiviral activity with inhibitory properties on HIV-1 replivation.

Tissue specificity

Expressed in monocytes and in placenta.

Sequence similarities

Belongs to the IL-6 superfamily.

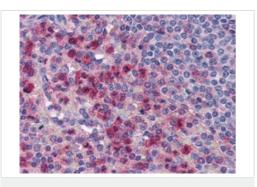
Post-translational modifications

O-glycosylated.

Cellular localization

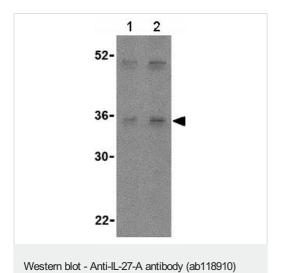
Secreted. Does not seem to be secreted without coexpression of EBI3.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-IL-27-A antibody (ab118910)

Human Spleen, Neutrophils (formalin-fixed, paraffin-embedded) stained with ab118910 at 5 ug/ml followed by biotinylated goat antirabbit lgG secondary antibody, alkaline phosphatase-streptavidin and chromogen.



Lane 1 : Anti-IL-27-A antibody (ab118910) at 2 μ g/ml **Lane 2 :** Anti-IL-27-A antibody (ab118910) at 4 μ g/ml

All lanes: Daudi lysate

Predicted band size: 27 kDa

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