

IL27 antibody - C-terminal region

Rabbit Polyclonal Antibody

Catalog # AI14556

Product Information

Application	WB
Primary Accession	Q8NEV9
Other Accession	NM_145659 , NP_663634
Reactivity	Human
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	27493

Additional Information

Gene ID	246778
Alias Symbol Other Names	IL-27, IL-27A, IL27p28, IL30, MGC71873, p28, IL27A Interleukin-27 subunit alpha, IL-27 subunit alpha, IL-27-A, IL27-A, Interleukin-30, p28, IL27, IL27A, IL30
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-IL27 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	IL27 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	IL27
Synonyms	IL27A, IL30
Function	Associates with EBI3 to form the IL-27 interleukin, a heterodimeric cytokine which functions in innate immunity. IL-27 has 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 T-cells, 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 IL27 alone is also able to inhibit the production of IL17 by CD4 and CD8 T-cells. While IL-27 suppressed the development of pro-inflammatory Th17 cells via STAT1, it inhibits the development of anti-inflammatory inducible regulatory T-cells, iTreg, independently of STAT1. IL-27 also has an effect on cytokine production, it suppresses pro-inflammatory 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, IL-27 also antagonizes the effects of some cytokines such as IL6 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 replication.

Cellular Location

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

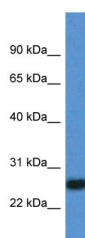
Tissue Location

Expressed in monocytes and in placenta.

References

Pflanz S.,et al.Immunity 16:779-790(2002).
 Livingston R.J.,et al.Submitted (OCT-2006) to the EMBL/GenBank/DDBJ databases.
 Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
 Hibbert L.,et al.J. Interferon Cytokine Res. 23:513-522(2003).
 Fakruddin J.M.,et al.Blood 109:1841-1849(2007).

Images



WB Suggested Anti-IL27 Antibody Titration: 1.0 µg/ml
 Positive Control: Fetal Lung

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.