

### **IL-11 Antibody**

Catalog # ASC11966

### **Specification**

## **IL-11 Antibody - Product Information**

Application Primary Accession Other Accession Reactivity

Host Clonality Isotype

Calculated MW

Application Notes

WB, IF, ICC, E

P20809

NP 000632, 3589

Human Rabbit Polyclonal

IqG

Predicted: 20 kDa

Observed: 19 kDa KDa

IL-11 antibody can be used for the detection of IL-11 by Western blot at 1 - 2 μg/mL. Antibody can also be used for immunocytochemistry at 10 μg/ml.

### **IL-11 Antibody - Additional Information**

Gene ID **3589** 

**Target/Specificity** 

IL-11 antibody was raised against a 16 amino acid peptide from near the amino terminus of human IL-11.<br/>
Str><br/>
The immunogen is located within amino acids 40 - 90 of IL-11.

## **Reconstitution & Storage**

IL-11 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

# **Precautions**

IL-11 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

# **IL-11 Antibody - Protein Information**

Name IL11 (HGNC:5966)

### **Function**

Cytokine that stimulates the proliferation of hematopoietic stem cells and megakaryocyte progenitor cells and induces megakaryocyte maturation resulting in increased platelet production (PubMed:<a href="http://www.uniprot.org/citations/2145578" target="\_blank">2145578</a>). Also promotes the proliferation of hepatocytes in response to liver damage. Binding to its receptor formed by IL6ST and IL11RA activates a signaling cascade that promotes cell proliferation (PubMed:<a href="http://www.uniprot.org/citations/12919066" target="\_blank">12919066</a>). Signaling leads to the activation of intracellular protein kinases and the phosphorylation of STAT3. The interaction with the membrane-bound IL11RA and IL6ST stimulates 'classic signaling', whereas the binding of IL11 and soluble IL11RA to IL6ST stimulates 'trans-signaling' (PubMed:<a href="http://www.uniprot.org/citations/30279168" target="\_blank">30279168</a>/a>).



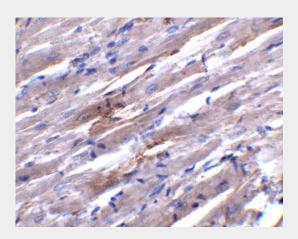
**Cellular Location** Secreted

# **IL-11 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

## IL-11 Antibody - Images



Immunohistochemistry of PPARGC1A in rat heart tissue with PPARGC1A antibody at 5 μg/mL.

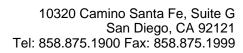
## IL-11 Antibody - Background

Interleukin 11 is a pleiotropic cytokine that has multiple effects on both hematopoietic and nonhematopoietic cells. Many of the biological effects described for IL-11 overlap those for IL-6 (1). It directly stimulates the proliferation of hematopoietic stem cells and megakaryocyte progenitor cells and induces megakaryocyte maturation resulting in increased platelet production (2). IL-11 promotes the proliferation of hepatocytes in response to liver damage. IL-11 binds to its receptor formed by IL6ST and either IL11RA1 or IL11RA2 (3). Clinically it is used to prevent severe thrombocytopenia and the reduction of the need for platelet transfusion following myelo-suppressive chemotherapy (4).

## **IL-11 Antibody - References**

Paul SR, Bennett F, Calvetti JA. Molecular cloning of a cDNA encoding interleukin-11, astromal cell-derived lymphopoietic and hematopoietic cytokine. Proc. Natl. Acad. Sci. USA 1990; 87:7512-6. Yang YC and Yin T. Interleukin (IL)-11 mediated signal transduction. Ann. N.Y. Acad. Sci. 1995; 762:31-40.

Dimitriadis E, Robb L, Salamonsen LA. Interleukin 11 advances progesterone-induced decidualization of human endometrial stromal cells. Mol. Hum. Reprod. 2002; 8:636-43. Andersson By U, Tani E, Andersson U. Tumor necrosis factor, interleukin 11, and leukemia inhibitory





factor produced by Langerhans cells in Langerhans cell histiocytosis. J. Pediatr. Hematol. Oncol. 2004; 26:706-11.