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IL-11 Antibody

Catalog # ASC11966

Product Information

Application	WB, ICC, E
Primary Accession	P20809
Other Accession	NP_000632, 10834994
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	21429
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	IL-11 antibody can be used for the detection of IL-11 by Western blot at 1 - 2 □g/mL. Antibody can also be used for immunocytochemistry at 10 □g/ml.

Additional Information

Gene ID	3589
Other Names	Interleukin-11, IL-11, Adipogenesis inhibitory factor, AGIF, Oprelvekin, IL11
Target/Specificity	IL-11; IL-11 antibody is human specific. At least two isoforms of IL-11 are known to exist; this antibody will only detect the longest isoform of IL-11.
Reconstitution & Storage	IL-11 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	IL-11 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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:2145578). 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:12919066). 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:30279168).
Cellular Location	Secreted

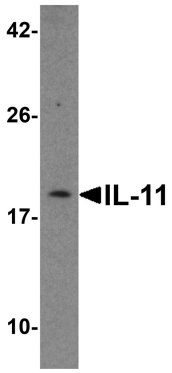
Background

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).

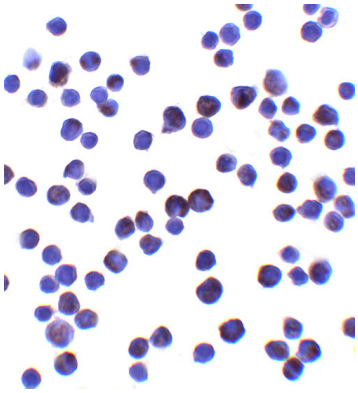
References

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.

Images



Western blot analysis of IL-11 in Hela Cell lysate with IL-11 antibody at 1 µg/ml.



Immunocytochemistry of IL-11 in HeLa cells with IL-11 antibody at 10 µg/ml.

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