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EBI3 Antibody

Catalog # ASC10829

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q14213
Other Accession	NP_005746, 14577917
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	25396
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	EBI3 antibody can be used for the detection of EBI3 by Western blot at 2 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	10148
Other Names	Interleukin-27 subunit beta, IL-27 subunit beta, IL-27B, Epstein-Barr virus-induced gene 3 protein, EBV-induced gene 3 protein, EBI3, IL27B
Target/Specificity	EBI3;
Reconstitution & Storage	EBI3 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	EBI3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EBI3
Synonyms	IL27B
Function	Associates with IL27 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. Another important role of IL-27 is its antitumor activity as well as its antiangiogenic activity with activation of production of antiangiogenic chemokines.

Cellular Location Secreted.

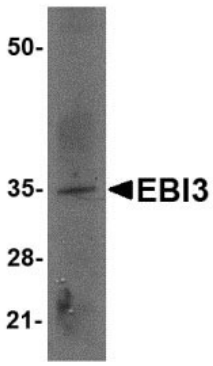
Background

EBI3 Antibody: EBI3 is a subunit in two distinct heterodimeric cytokines: interleukin-27 (IL-27) and IL-35. Like interleukin-23 (IL-23), IL-27 is a recently discovered member of the IL-6/IL-12 family of proinflammatory and immunoregulatory cytokines. It exists as a heterodimer composed of the p40-related protein EBI3 and an IL-12 p35-related protein termed p28. IL-27 is produced after activation by antigen-presenting cells and induces proliferation of na□ve but not memory CD4+ T-cells. It acts by binding to its receptor WSX-1 (also known as TCCR) and gp130 which results in the activation of a Jak/STAT signaling cascade, suggesting the IL-27 is involved in the regulation of immune processes. It has been suggested that IL-27 can also be used as a therapeutic agent against cancer as it can also induce tumor-specific anti-tumor activity mediated through CD8+ T-cells, IFN-gamma, and T-bet. IL-35 is composed of EBI3 and the p35 subunit of IL-12 and has been reported to have therapeutic effects against collagen-induced arthritis by expanding the population of regulatory T cells and suppressing Th17 cells. At least two isoform of EBI3 are known to exist.

References

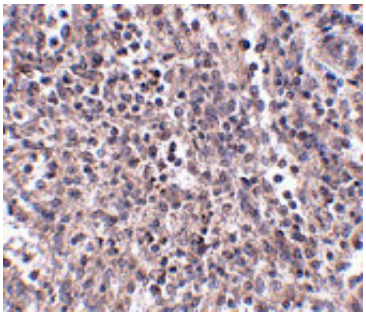
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Devergne O, Birkenbach M, and Kieff E. Epstein-Barr virus-induced gene 3 and the p35 subunit of interleukin form a novel heterodimeric hematopoietin. Proc. Natl. Acad. Sci. USA1997; 94:12041-6.
Niedbala W, Wei X, Cai B, et al. IL-35 is a novel cytokine with therapeutic effects against collagen-induced arthritis through the expression of regulatory T cells and suppression of Th17 cells. Eur. J. Immunol.2007; 3021-29.
Pfanz S, Hibbert L, Mattson J, et al. WSX-1 and glycoprotein 130 constitute a signal-transducing receptor for IL-27. J. Immunol.2004; 172:2225-31.

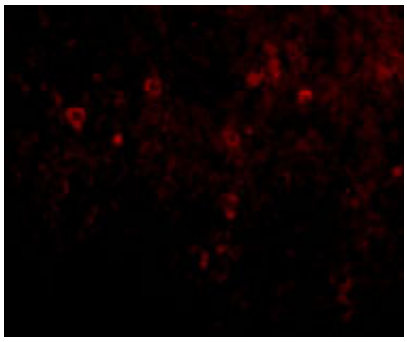
Images



Western blot analysis of EBI3 in rat spleen tissue lysate with EBI3 antibody at 2 µg/mL.

Immunohistochemistry of EBI3 in human spleen tissue with EBI3 antibody at 2.5 µg/mL.





Immunofluorescence of EBI3 in Human Spleen cells with EBI3 antibody at 20 µg/mL.

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