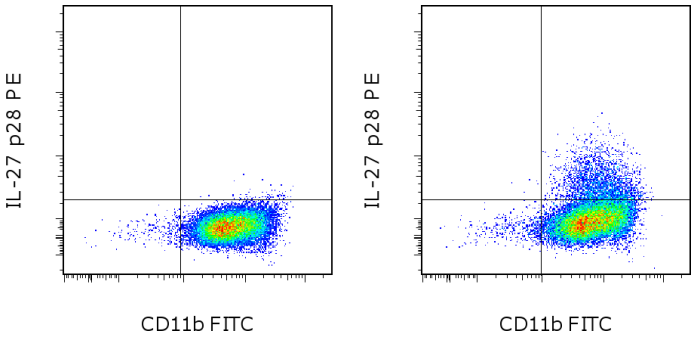
Anti-Mouse IL-27 p28 PE

Catalog Number: 12-7285
Also known as: Interleukin-27 p28, IL-30
RUO: For Research Use Only. Not for use in diagnostic procedures.



In vitro-cultured mouse monocytes unstimulated (left) or stimulated with Mouse IFN gamma Recombinant Protein (cat. 14-8311), LPS, and the Imidazoquinoline, R848 (right) in the presence of Protein Transport Inhibitor Cocktail (cat. 00-4980), stained intracellularly with Anti-Mouse CD11b FITC (cat. 11-0112) and 0.03 ug of Anti-Mouse IL-27 p28 PE. Total viable cells were used for analysis.

Product Information

Contents: Anti-Mouse IL-27 p28 PE
REF **Catalog Number:** 12-7285
Clone: MM27-7B1
Concentration: 0.2 mg/mL
Host/Isotype: Mouse IgG2a , k

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C. Do not freeze. Light-sensitive material.
LOT **Batch Code:** Refer to vial
Use By: Refer to vial

Description

This MM27-7B1 monoclonal antibody reacts with the p28 subunit of Interleukin-27 (IL-27), which is a member of the IL-12 family. IL-27 is a heterodimer of the subunits EBI3 (Epstein-Barr Virus Induced Gene 3), which is homologous to the p40 subunit shared by IL-12 and IL-23, and p28 (IL-30), which is homologous to p35. It is produced by activated dendritic cells and macrophages in response to TLR ligands and inflammatory cytokines.

The IL-27 receptor shares one subunit, gp130, with other members of the IL-6 family. The subunit WSX-1 (IL-27R alpha, TCCR) is unique to IL-27 and is believed to be the only part of the receptor that interacts with the cytokine. The IL-27R is most abundantly expressed on activated T-cells and NK cells, although expression has also been shown on B-cells and naïve T-cells. IL-27R activation leads to the phosphorylation of Jak/STAT proteins, with STAT1 and STAT3 being critical to the function of IL-27. IL-27 has been shown to have both pro-inflammatory and anti-inflammatory effects. It influences the commitment of CD4+ T-cells toward the Th1 lineage by inducing the expression of the T-bet transcription factor and the upregulation of IL-12R beta2. Its anti-inflammatory functions include the suppression of Th2 and Th17 proliferation and differentiation. Susceptibility to T-cell mediated autoimmunity has been observed in WSX-1 knockout mice.

Recent evidence suggests that the p28 subunit may also be secreted independently of EBI3 and have functions distinct to the IL-27 heterodimer. It is believed to not only antagonize the activity of IL-27, but also inhibit signaling of other gp130 ligands, such as IL-6 and IL-11.

Applications Reported

This MM27-7B1 antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

Applications Tested

This MM27-7B1 antibody has been tested by intracellular staining and flow cytometric analysis of mouse bone marrow-derived monocytes. This can be used at less than or equal to 0.06 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for

Tel: 888.999.1371 or 858.642.2058 • Fax: 858.642.2046 • www.ebioscience.com • info@ebioscience.com

Anti-Mouse IL-27 p28 PE

Catalog Number: 12-7285
Also known as: Interleukin-27 p28, IL-30
RUO: For Research Use Only. Not for use in diagnostic procedures.

optimal performance in the assay of interest.

References

Stumhofer JS, Tait ED, Quinn WJ 3rd, Hosken N, Spudy B, Goenka R, Fielding CA, O'Hara AC, Chen Y, Jones ML, Saris CJ, Rose-John S, Cua DJ, Jones SA, Elloso MM, Grotzinger J, Cancro MP, Levin SD, Hunter CA. A Role for IL-27p28 as an antagonist of gp130-mediated signaling. Nat Immunol. 2010 Dec;11(12):1119-26.

Stumhofer JS and Hunter CA. Advances in understanding the anti-inflammatory properties of IL-27. Immunol Lett. 2008 May 15; 117(2): 123-30.

Yoshimura A, Yoshida H, Miyazaki Y, Kinjyo I, Ishibashi T, Yoshimura T, Takeda A, Hamano S. Two sided roles of IL-27: induction of Th1 differentiation on Naïve CD4+ T cells versus suppression of proinflammatory cytokine production including IL-23-induced IL-17 on activated CD4+ T cells partially through STAT3-dependent mechanism. J Immunol. 2006; 177: 5377-85.

Related Products

00-4980 Protein Transport Inhibitor Cocktail (500X)
00-8222 IC Fixation Buffer
00-8333 Permeabilization Buffer (10X)
11-0112 Anti-Mouse CD11b FITC (M1/70)
12-4724 Mouse IgG2a K Isotype Control PE
14-8311 Mouse IFN gamma Recombinant Protein
88-8823 Fixation & Permeabilization Buffers

Tel: 888.999.1371 or 858.642.2058 • Fax: 858.642.2046 • www.ebioscience.com • info@ebioscience.com