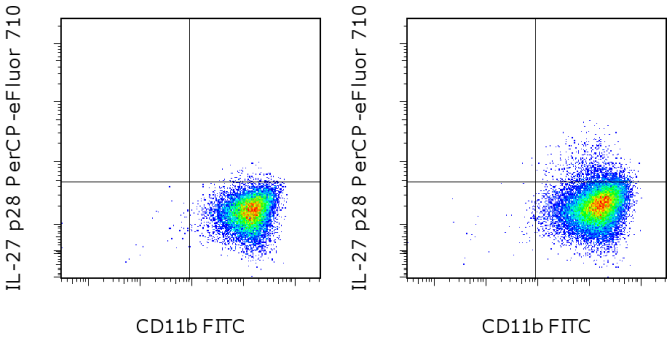
# Anti-Mouse IL-27 p28 PerCP-eFluor® 710

**Catalog Number:** 46-7285
**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 0.008 ug of Anti-Mouse IL-27 p28 PerCP-eFluor® 710. Total viable cells were used for analysis.

## Product Information

**Contents:** Anti-Mouse IL-27 p28 PerCP-eFluor® 710
REF **Catalog Number:** 46-7285
**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 0.015 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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optimal performance in the assay of interest.

PerCP-eFluor® 710 can be used in place of PE-Cy5, PE-Cy5.5 or PerCP-Cy5.5. PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm). Please make sure that your instrument is capable of detecting this fluorochrome. For a filter configuration, we recommend using the 685 LP dichroic mirror and 710/40 band pass filter, however the 695/40 band pass filter is an acceptable alternative.

Our testing indicates that PerCP-eFluor® 710 conjugated antibodies are stable when stained samples are exposed to freshly prepared 2% formaldehyde overnight at 4°C, but please evaluate for alternative fixation protocols.

Click here or contact eBioscience Technical Support for more information on eFluor™ Organic Dyes including PerCP-eFluor® 710.

**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)
14-8311 Mouse IFN gamma Recombinant Protein
46-4724 Mouse IgG2a K Isotype Control PerCP-eFluor® 710
88-8823 Fixation & Permeabilization Buffers


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