TECHNICAL DATA SHEET

PE Anti-Mouse IL-12/IL-23 p40 (C17.8)

Catalog Number: 50-7123

PRODUCT INFORMATION

Contents: PE Anti-Mouse IL-12/IL-23 p40 (C17.8)

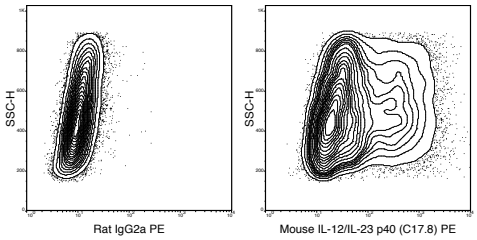
Isotype: Rat IgG2a, kappa

Concentration: 0.2 mg/mL

Clone: C17.8

Reactivity: Mouse

Formulation: 10 mM NaH_2PO_4, 150 mM NaCl, 0.09% NaN_3, 0.1% gelatin, pH7.2



Mouse macrophages were stimulated in the presence of a protein transport inhibitor. Cells were then fixed, permeabilized and stained intracellularly with 0.125 ug PE Anti-Mouse IL-12/IL-23 p40 (50-7123) (left panel) or 0.125 ug PE Rat IgG2a (left panel).

DESCRIPTION

The C17.8 antibody is specific for the 40 kDa (p40) protein subunit shared by the cytokines IL-12 and IL-23. To form IL-12, p40 assembles with a separate 35 kDa protein, known as p35, resulting in a 70 kDa functional cytokine. IL-12 is secreted by activated monocytes, macrophages, and dendritic cells, and has been shown to target naïve, resting CD4+ T cells to promote their proliferation and secretion of cytokines. IL-23 contains the p40 subunit in combination with a 19 kDa protein chain, p19 - its primary source being activated dendritic cells and other antigen-presenting cells. IL-23 appears to target different cell types than IL-12, acting on memory CD4+ T cells to induce a strong proliferative response and contributing to the generation and expansion of Th17 cells. Like the cytokines themselves, the receptors for IL-12 and IL-23 share one subunit, as well as containing distinct cytokine-specific subunits.As the C17.8 antibody binds to a shared subunit of both IL-12 and IL-23, it may be used as a marker for either IL-12 or IL-23 expression in dendritic cells, monocytes and macrophages, and is widely used for neutralization of activity associated with either cytokine.

PREPARATION & STORAGE

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation. It is recommended to store the product undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.

APPLICATION NOTES

This antibody preparation has been quality-tested for flow cytometry using mouse spleen cells, or an appropriate cell type (where indicated). The amount of antibody required for optimal staining of a cell sample should be determined empirically in your system.

REFERENCES

Dong H, Franklin NA, Roberts DJ, Yagita H, Glennie MJ and Bullock TNJ. 2012. J. Immunol. 188: 3829-3838. (in vivo blocking)Prabhakara R, Harro JM, Leid JG, Keegan AD, Prior ML, and Shirtliff ME. 2011. Infect. Immun. 79: 5010-5018. (in vivo blocking)Chmielewski M, Kopecky C, Hombach AA, and Abken H. 2011. Cancer Res. 71: 5697-5706. (ELISA)Lo C-H, Lee S-C, Wu P-Y, Pan W-Y et al. 2003. J. Immunol. 171: 600-607. (immunoprecipitation)Belladonna ML, Renauld J-C, Bianchi R, Vacca C, Fallarino F, Orabona C, Fioretti MC, Grohmann, and Puccetti P. 2002. J. Immunol. 168: 5448-5454. (western blot)Ludviksson BR, Ehrhardt RO, and Strober W. 1999. J. Immunol. 163: 4349-4359. (immunofluorescence microscopy – frozen tissue)Kato K, Shimozato O, Hoshi K, Wakimoto H, Hamada H, Yagita H, and Okumura K. 1996. Proc. Natl. Acad. Sci. 93:9085-9089. (immunoprecipitation - ELISA)Wysocka M, Kubin M, Vieira LQ, Ozmen L, Garotta G, Scott P and Trinchieri G. 1995. Eur. J. Immunol. 25: 672-676. (Origination of clone - immunoprecipitation, western blot)

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