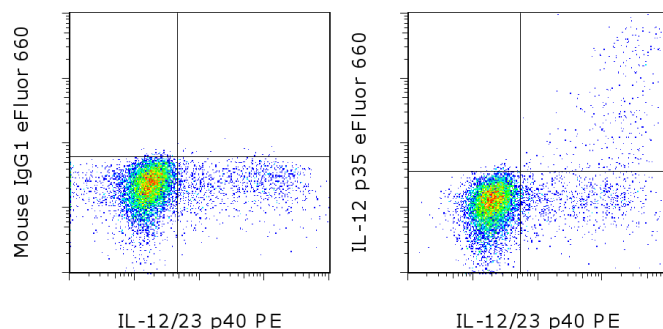


Anti-Human IL-12 p35 eFluor® 660 (Alexa Fluor® 647 Replacement)

Catalog Number: 50-7359

Also known as: Interleukin-12, Interleukin-12 subunit alpha, IL-12A, IL-12p35

RUO: For Research Use Only. Not for use in diagnostic procedures.



Normal human peripheral blood cells stimulated with Human IFN gamma Recombinant Protein (cat. 14-8319), LPS, and the Imidazoquinoline, R848, in the presence of Protein Transport Inhibitor Cocktail (cat. 00-4980) and stained intracellularly with Anti-Human IL-12/23 p40 PE (cat. 12-7235) and Mouse IgG1 K Isotype Control (cat. 50-4714) (left) or Anti-Human IL-12 p35 eFluor® 660 (right). Cells in the monocyte gate were used for analysis.

Product Information

Contents: Anti-Human IL-12 p35 eFluor® 660 (Alexa Fluor® 647 Replacement)

Catalog Number: 50-7359

Clone: SNKY35

Concentration: 5 µL (0.03 µg)/test

Host/Isotype: Mouse IgG1, kappa

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.

Batch Code: Refer to vial

Use By: Refer to vial

Contains sodium azide

Description

This SNKY35 monoclonal antibody reacts with human p35, a component of two of the four members of the interleukin (IL)-12 family of cytokines. The IL-12 family members are heterodimeric cytokines composed of an alpha-chain, such as p35, and a beta-chain, such as p40. The alpha-chain proteins are thought to be the limiting factors for secretion of IL-12 family member cytokines, as expression of the alpha-chain is more restricted than that of the beta-chain proteins, and the two subunits may need to be co-expressed in order for cytokine secretion to occur. IL-12 family members are secreted primarily by antigen-presenting cells in response to various TLR agonists and other inflammatory stimuli. The exact types of stimuli present and kinetics of stimulation determine the balance of IL-12 family member production.

The p35 protein was first identified as part of the IL-12 cytokine, which is also known as IL-12p70. Secretion is induced by IFN gamma and agonists of TLR3, 4, or 7 and is inhibited by Th2 cytokines. IL-12 is essential for the differentiation and maintenance of Th1 cells. The other subunit, p40, is expressed in much higher quantities than p35, and may be secreted independently as a monomer or homodimer. Free p40 may act as an antagonist of IL-12 function.

More recently, p35 was also found to dimerize with EB13 (Epstein-Barr Virus-Induced Gene 3) to form IL-35. The biology of IL-35 is incompletely understood, and it is believed to be unique among the IL-12 family members in its expression and function. It is produced by regulatory T cells, and appears to have immunoregulatory functions. IL-35 has been found to suppress the proliferation and function of effector T cells, and has also been observed to induce a regulatory phenotype on naïve CD4+ cells cultured in its presence.

Testing of SNKY35 in the context of IL-35 is currently in process. For additional information, please contact technical support.

Applications Reported

This SNKY35 antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

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Applications Tested

This SNKY35 antibody has been pre-titrated and tested by intracellular staining and flow cytometric analysis of stimulated human peripheral blood cells. This can be used at 5 µL (0.03 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 10⁵ to 10⁸ cells/test.

eFluor® 660 is a replacement for Alexa Fluor® 647. eFluor® 660 emits at 659 nm and is excited with the red laser (633 nm). Please make sure that your instrument is capable of detecting this fluorochrome.

References

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Goriely S., Neurath MF., and Goldman M. How microorganisms tip the balance between interleukin-12 family members. *Nat Rev Immunol.* 2008 Jan;8(1):81-6

Collison L and Vignali D. Interleukin-35: Odd one out or part of the family? *Immunol Rev.* 2008 Dec; 226: 248-62.

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Related Products

00-4980 Protein Transport Inhibitor Cocktail (500X)

12-7235 Anti-Human IL-12/IL-23 p40 PE (eBioHP40 (HP40, HP-40))

14-8319 Human IFN gamma Recombinant Protein

50-4714 Mouse IgG1 K Isotype Control eFluor® 660 (Alexa Fluor® 647 Replacement) (P3.6.2.8.1)

88-8823 Intracellular Fixation & Permeabilization Buffer (plus Brefeldin A) (previously named IC Fixation & Permeabilization Buffer)