

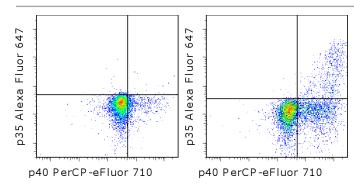
An Affymetrix Company

## Anti-Human IL-12 p35 Alexa Fluor® 647 (To Be Discontinued. Refer to Cat. No. 50-7359)

Catalog Number: 51-7359

Also known as: Interleukin-12, IL-12p70

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



Normal human peripheral blood cells unstimulated (left) or 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 PerCP-eFluor® 710 (cat. 46-7235) and Anti-Human IL-12 p35 Alexa Fluor® 647. Cells in the monocyte gate were used for analysis.

### **Product Information**

**Contents:** Anti-Human IL-12 p35 Alexa Fluor® 647 (To Be Discontinued. Refer to

Cat. No. 50-7359)

REF Catalog Number: 51-7359

Clone: SNKY35

**Concentration:** 5 uL (0.03 ug)/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

## 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 EBI3 (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**



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

### **Applications Tested**

This SNKY35 antibody has been pre-titrated and tested by intracellular staining followed by flow cytometric analysis. This can be used at 5  $\mu$ L (0.03  $\mu$ g) per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test.

#### References

Kalim KW, Groettrup M. Prostaglandin E2 inhibits IL-23 and IL-12 production by human monocytes through down-regulation of their common p40 subunit. Mol Immunol. 2013 Mar;53(3):274-82 (**SNKY35**, FC, PubMed)

Collison LW, Chaturvedi V, Henderson AL, Giacomin PR, Guy C, Bankoti J, Finkelstein D, Forbes K, Workman CJ, Brown SA, Rehg JE, Jones ML, Ni HT, Artis D, Turk MJ, Vignali DA. IL-35-mediated induction of a potent regulatory T cell population. Nat Immunol. 2010 Dec;11(12):1093-101.

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.

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)

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

12-7358 Anti-Human IL-27 EBI3 PE (ebic6)

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

88-7126 Human IL-12 p70 ELISA Ready-SET-Go!®

88-7879 Human IL-12 p70 ELISPOT Ready-SET-Go!®

BMS2013\* Human IL-12/IL-23 p40 Platinum ELISA

BMS238CE\* Human IL-12 (p70) Platinum ELISA

BMS8238FF\* Human IL-12 (p70) FlowCytomix Simplex