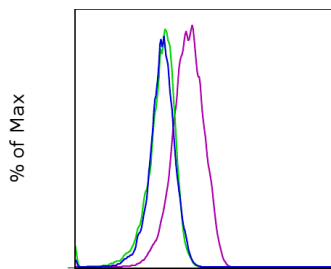


Anti-Mouse IL-15 Receptor alpha PE

Catalog Number: 12-7149

Also known as: Interleukin-15 Receptor alpha, CD215, IL-15R

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



IL-15 Receptor alpha PE

Staining of unstimulated (green histogram) or LPS-stimulated (purple histogram) C57Bl/6 bone marrow derived dendritic cells with 0.06 ug of Anti-Mouse IL-15 Receptor alpha PE. Staining of LPS-stimulated dendritic cells with 0.06 ug of Rat IgG1 kappa Isotype Control PE (cat. 12-4301) is shown by the blue histogram. Total viable cells were used for analysis.

Product Information

Contents: Anti-Mouse IL-15 Receptor alpha PE



Catalog Number: 12-7149

Clone: DNT15Ra

Concentration: 0.2 mg/mL

Host/Isotype: Rat 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 DNT15Ra antibody reacts with the alpha subunit of the Mouse IL-15 Receptor. The IL-15 Receptor alpha subunit is unique to IL-15, while the other two subunits of the receptor, beta and gamma, are shared with IL-2. IL-15R signaling is mediated by Jak/STAT pathways, and results in the activation of neutrophils, dendritic cells, and macrophages. IL-15 has also been found to play a critical role in the development and survival of NK cells and CD8+ T cells.

Although high levels of mouse IL-15 mRNA have been observed in many cell types, free IL-15 is rarely detectable in biological samples. Recent research suggests that IL-15 is retained inside the cell and only secreted in complex with IL-15 Receptor alpha. This chaperoning is necessary from the ER to the Golgi, through secretion. The cytokine/receptor complex may stay bound to the cell surface, where it can be trans-presented to cells expressing the beta-gamma subunits of the receptor, or can be secreted in a soluble form lacking the transmembrane domain of IL-15 Receptor alpha. IL-15 and IL-15 Receptor alpha are expressed by dendritic cells and macrophages in response to inflammatory stimuli.

Our testing suggests that there may be strain differences in expression and staining of the Mouse IL-15 Receptor alpha. This DNT15Ra antibody has been tested on cells from C57Bl/6 mice. Staining has also been observed with this antibody after pre-incubation of NK cells with exogenous Mouse IL-15/IL-15R Complex, suggesting that DNT15Ra will recognize both Mouse IL-15 Receptor alpha and the Mouse IL-15/IL-15R Complex.

Applications Reported

This DNT15Ra antibody has been reported for use in flow cytometric analysis.

Applications Tested

This DNT15Ra antibody has been tested by flow cytometric analysis of mouse dendritic cells. This can be used at less than or equal to 0.125 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. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

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References

Zhang H and Meadows GG. Exogenous IL-15 in combination with IL-15R alpha rescues natural killer cells from apoptosis induced by chronic alcohol consumption. *Alcohol Clin Exp Res.* 2009 Mar;33(3):419-27

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Rubinstein M, Kovar M, Purton JF, Cho JH, Boyman O, Surh CD, Sprent J. Converting IL-15 to a superagonist by binding to soluble IL-15Ra. *Proc Acad Nat Sci USA.* 2006 Jun 13;103(24):9166-71

Liu T, Nishimura H, Matsuguchi T, Yoshikai Y. Differences in interleukin-12 and -15 production by dendritic cells at the early stage of *Listeria monocytogenes* infection between BALB/c and C57 BL/6 mice. *Cell Immunol.* 2000 May 25;202(1):31-40.

Related Products

00-4222 Flow Cytometry Staining Buffer

12-4301 Rat IgG1 K Isotype Control PE

14-8331 Mouse GM-CSF Recombinant Protein

17-0114 Anti-Mouse CD11c APC (N418)

88-7215 Mouse IL-15/IL-15R Complex ELISA Ready-SET-Go!®