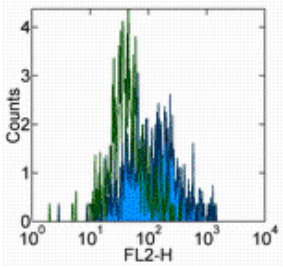
full spectrum cell analysis®
eBioscience®

Anti-Human IL-15 Receptor Purified

Catalog Number: 14-7159
Also Known As: Interleukin-15 Receptor alpha, IL-15R, IL15R
RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of adherent human PBMCs stimulated with LPS and IFN gamma for 24 hours with 0.25 ug of Mouse IgG2b K Isotype Control Purified (cat. 14-4732) (open histogram) or 0.25 ug of Anti-Human IL-15 Receptor Purified (filled histogram) followed by Anti-Mouse IgG Biotin (cat. 13-4013) and Streptavidin PE (cat. 12-4317). Cells in the large scatter population were used for analysis.

Product Information

Contents: Anti-Human IL-15 Receptor Purified
REF **Catalog Number:** 14-7159
Clone: eBioJM7A4
Concentration: 0.5 mg/ml
Host/Isotype: Mouse IgG2b
Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C.
LOT **Batch Code:** Refer to Vial
Use By: Refer to Vial
Caution, contains Azide

Description

The eBioJM7A4 monoclonal antibody reacts with the IL-15 receptor alpha chain (IL-15Rα). IL-15 and IL-2 are cytokines with overlapping, but distinct, biologic effects. Their receptors share 2 subunits, the IL2R-β and -γ chains, which are essential for signal transduction. The IL-15R-α receptor is structurally related to IL-2R-α. However, the IL-15Rα alone binds IL-15 with a 1,000-fold higher affinity than that seen with IL-2R-α and IL-2. In the human, 3 differentially spliced human IL15R-α variants that are all capable of high affinity binding of IL-15 have been isolated. The cytoplasmic domain of IL15R-α, like that of IL2R-α, is dispensable for mitogenic signaling, suggesting that the primary role of the alpha chains is to confer high affinity binding. At high concentrations, IL-15, like IL-2, is able to signal through a complex of IL2R-β and IL2R-γ in the absence of the alpha subunit.

Applications Reported

This eBioJM7A4 antibody has been reported for use in flow cytometric analysis, immunoprecipitation, and immunoblotting (WB).

Applications Tested

This eBioJM7A4 antibody has been tested by flow cytometric analysis of LPS and IFN-γ-stimulated PBMCs. This can be used at less than or equal to 0.5 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 optimal performance in the assay of interest.

References

Vamosi G, Bodnar A, Vereb G, Jenei A, Goldman CK, Langowski J, Toth K, Matyus L, Szollosi J, Waldmann TA, Damjanovich S. IL-2 and IL-15 receptor alpha-subunits are coexpressed in a supramolecular receptor cluster in lipid rafts of T cells. Proc Natl Acad Sci U S A. 2004 Jul 27;101(30):11082-7. (**JM7A4**, FRET, PubMed)

Dubois S, Mariner J, Waldmann TA, Tagaya Y. IL-15Ralpha recycles and presents IL-15 In trans to neighboring cells. Immunity. 2002 Nov;17(5):537-47. (**JM7A4**, FC, WB, PubMed)

Anderson, D., et al. 1995. Functional characterization of the human interleukin-15 receptor alpha chain and close linkage of IL15RA and IL2RA genes. J. Biol. Chem. 270: 29862-29869.

Giri, J., et al. 1995. Identification and cloning of a novel IL-15 binding protein that is structurally related to the alpha of the IL-2 receptor. EMBO J. 14: 3654-3663.

Related Products

00-4222 Flow Cytometry Staining Buffer

11-4011 Anti-Mouse IgG FITC
14-4732 Mouse IgG2b K Isotype Control Purified

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