

Anti-Human IL-4 Antibody, Clone MP4-25D2, PE

Rat monoclonal antibody against human IL-4, PE-conjugated

Catalog #100-1452

100 Tests

5 µL/test

Product Description

This rat monoclonal antibody (clone MP4-25D2) reacts with human interleukin 4 (IL-4). IL-4 is an ~15 kDa protein primarily composed of a four-helix bundle and is produced by a host of immune cells including T helper 2 (Th2) cells, basophils, eosinophils, and mast cells. It exhibits high affinity for the IL-4 receptor alpha (IL-4R α) chain, which dimerizes with either the common gamma chain (γ c) or IL-13 receptor alpha 1 (IL-13R α 1), leading to activation of downstream JAK-STAT signaling. IL-4 is involved in the differentiation of CD4⁺ T lymphocytes into Th2 cells, class switching of B cells to IgE, and activation of M2 macrophages with IL-13 via an alternative pathway. MP4-25D2 is a neutralizing antibody and is suitable for the detection of intracellular IL-4 by flow cytometry.

Target Antigen:	IL-4
Alternative Names:	B cell stimulatory factor 1, BCDF, BCGF, BSF-1, interleukin-4
Gene ID:	3565
Species Reactivity:	Human
Host Species:	Rat
Clonality:	Monoclonal
Clone:	MP4-25D2
Isotype:	IgG1, kappa
Immunogen:	Purified recombinant human IL-4
Conjugate:	PE (Phycoerythrin)

Applications

Verified Applications: FC

Reported Applications: FC

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IHC-P: Immunohistochemistry (paraffin-embedded); IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Purification: The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE.

Stability and Storage: Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. Stable until expiry date (EXP) on label.

Directions for Use: For flow cytometry, the suggested use of this antibody is 5 µL per 1 x 10⁶ cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Data

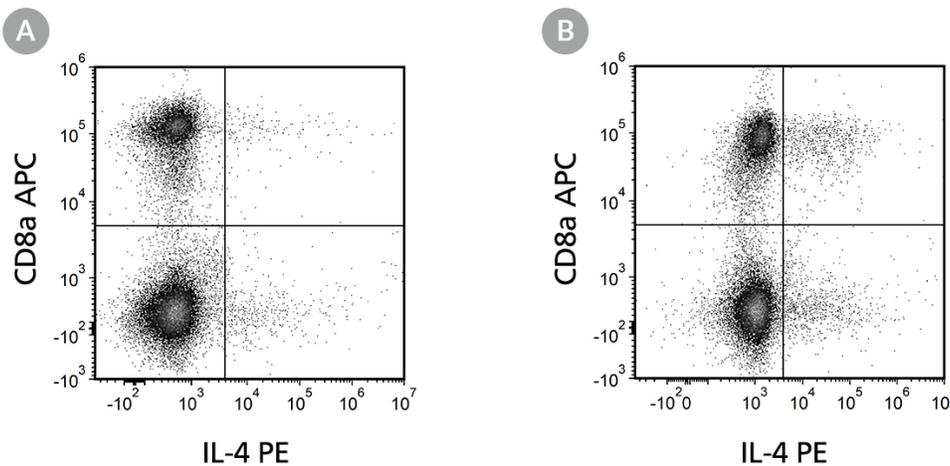


Figure 1. Flow Cytometry Analysis of Unstimulated and Stimulated Human T Cells Labeled With Anti-Human IL-4 Antibody, Clone MP4-25D2

(A) Flow cytometry analysis of unstimulated human T cells labeled with anti-human IL-4 Antibody, Clone MP4-25D2, PE and anti-human CD8a antibody, clone RPA-T8, APC (Catalog #60022AZ.1). (B) Flow cytometry analysis of PMA/ionomycin-stimulated human T cells labeled with anti-human IL-4 Antibody, Clone MP4-25D2, PE and anti-human CD8a antibody, clone RPA-T8, APC (Catalog #60022AZ.1).

Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies, or contact us at techsupport@stemcell.com.

References

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