Anti-Human CD45 Antibody, Clone HI30, FITC

Antibodies

Mouse monoclonal IgG1 antibody against human, chimpanzee CD45, FITC-conjugated

Catalog #100-0466	500 Tests	5 µL (0.25 µg)/test (50 µg/mL)
#60018FI	100 Tests	5 µL (0.25 µg)/test (50 µg/mL)
#60018FI.1	25 Tests	5 µL (0.25 µg)/test (50 µg/mL)

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Product Description

The HI30 antibody reacts with all isoforms of CD45, a type I transmembrane glycoprotein expressed on the surface of most hematopoietic cells except mature erythrocytes, platelets, and plasma cells; expression of CD45 is lost during differentiation of these cell types. CD45 is a member of the protein tyrosine phosphatase family and functions in a number of immunoregulatory processes, including cell activation, growth, differentiation, and oncogenic transformation. The large cytoplasmic portion of CD45 contains two tyrosine phosphatase domains (one of which is enzymatically active) that are involved in modulating the function of intracellular substrates such as the Src kinases Lck and Fyn. Several isoforms of CD45 have been identified, the expression of which differs according to cell type and functional status. Alternative splicing of three exons (4, 5, 6) encoding the extracellular RA, RB, and RC polypeptide sequences gives rise to up to 8 isoforms with molecular masses in the range of 180 - 240 kDa. The leukocyte common antigen (LCA), the region recognized by the HI30 antibody, is an extracellular region located proximal to the membrane and common to all isoforms of CD45.

Target Antigen Name:	CD45
Alternative Names:	B220, LCA, T200
Gene ID:	5788
Species Reactivity:	Human, Chimpanzee
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	HI30
Isotype:	IgG1, kappa
Immunogen:	Full-length human CD45 protein
Conjugate:	FITC (Fluorescein isothiocyanate)

Applications

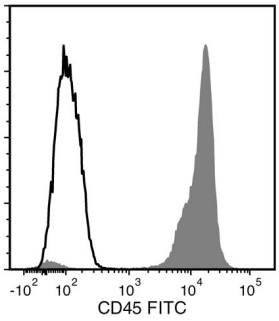
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human T Cell Enrichment Kit (Catalog #19051), EasySep™ Human CD4+ T Cell Enrichment Kit (Catalog #19052) and EasySep™ Human CD45 Depletion Kit II (Catalog #17898; partial blocking may be observed).

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; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered saline, pH 7.2, containing 0.09% sodium azide, 0.1% gelatin, and < 0.2% (w/v) bovine serum albumin
Purification:	The antibody was purified by affinity chromatography and conjugated with FITC under optimal conditions. The solution is free of unconjugated FITC.
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 reagent is ≤ 0.25 µg per 1 x 10^6 cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs) labeled with Anti-Human CD45 Antibody, Clone HI30, FITC (filled histogram) or a mouse IgG1, kappa FITC isotype control antibody (solid line histogram).

Related Products

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

References

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