Antibodies

Anti-Human CD45 Antibody, Clone HI30, PE

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

Catalog	#60018PE.1	25 tests	5 µL/test
	#60018PE	100 tests	5 µL/test

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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 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 Leucocyte Common Antigen, 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:	LCA, T200, B220
Gene ID:	5788
Species Reactivity:	Human, Chimpanzee
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	HI30
Isotype:	IgG1, kappa
Immunogen:	Full-length human CD45 protein
Conjugate:	PE

Applications

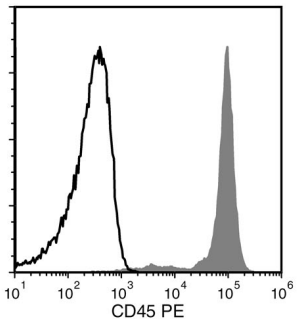
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human T Cell Enrichment Kit (Catalog #19051) and EasySep™ Human CD4+ T Cell Enrichment Kit (Catalog #19052).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) bovine serum albumin
Purification:	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please request a lot-specific Certificate of Analysis from techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is 5 µL per 1 x 10e6 cells in 100 µL volume or per 100 µL of whole blood. 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, PE (filled histogram) or a mouse IgG1, kappa Alexa Fluor® 488 isotype control antibody (open histogram).

Related Products

PRODUCT NAME	CATALOG #	SIZE
Anti-Human CD45 Antibody, Clone HI30	60018	Coming soon
Anti-Human CD45 Antibody, Clone HI30, PE	60018PE.1	25 tests
Anti-Human CD45 Antibody, Clone HI30, PE	60018PE	100 tests
Anti-Human CD45 Antibody, Clone HI30, Alexa Fluor® 488	60018AD.1	25 tests
Anti-Human CD45 Antibody, Clone HI30, Alexa Fluor® 488	60018AD	100 tests

References

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