

Antibodies

Anti-Human CD71 (Transferrin Receptor) Antibody, Clone OKT9

Mouse monoclonal IgG1 antibody against human CD71 (transferrin receptor), unconjugated

Catalog #60106
#60106.1

100 µg 0.5 mg/mL
25 µg 0.5 mg/mL



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Product Description

The OKT9 antibody reacts with CD71 (transferrin receptor), an ~180 - 190 kDa disulfide-bonded homodimer and type 2 transmembrane glycoprotein expressed at high levels on a broad range of actively proliferating cells, as well as reticulocytes, monocytes, macrophages and marrow stromal cells. Surface levels are low on resting leukocytes but are upregulated on lymphocytes, monocytes and macrophages following antigen or mitogen stimulation. Expression is lost during differentiation of reticulocytes into mature erythrocytes. CD71 plays an essential role in cellular growth, mediating uptake of transferrin-iron complexes through receptor-mediated endocytosis and recycling of the apotransferrin-receptor complex to the cell surface. Two molecules of iron-loaded transferrin are bound by the receptor, the expression of which is regulated by the metabolic demand for iron. CD71 has been employed as a marker for evaluating erythroid precursors within the bone marrow and for assessing disorders such as erythroid leukemia and myelodysplastic syndrome. It has also served as a target for drug delivery. The OKT9 antibody binds an epitope that reportedly overlaps with that of antibody clone CY1G4 but is distinct from the ligand binding site for transferrin.

Target Antigen Name:	CD71 (Transferrin Receptor)
Alternative Names:	Mtvr1, p90, T9, TFR, TFRC, TFR1, TR, Transferrin receptor, TRFR
Gene ID:	7037
Species Reactivity:	Human
Host Species:	Mouse (CAF1)
Clonality:	Monoclonal
Clone:	OKT9
Isotype:	IgG1, kappa
Immunogen:	Human acute lymphoblastic leukaemia cells
Conjugate:	Unconjugated

Applications

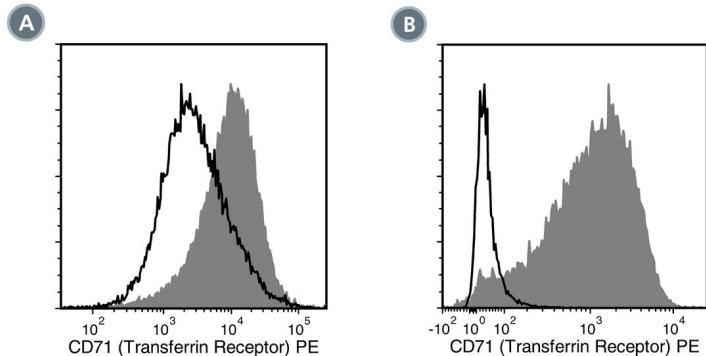
Verified:	FC
Reported:	FA, FC, ICC, IF, IHC, Immunoelectron Microscopy, IP, WB
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Direct Human T Cell Isolation Kit (Catalog #19661) and EasySep™ Human CD3 Positive Selection Kit (Catalog #18051), as well as peripheral blood erythroid precursor cells cultured with StemSpan™ SFEM II medium (Catalog #09605) and StemSpan™ Erythroid Expansion Supplement (Catalog #02692).

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:	Aqueous buffer containing 0.09% sodium azide, may contain carrier protein/stabilizer
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤ 0.5 µg per 1 × 10 ⁶ cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of CD3+ cells (T cells) isolated from human peripheral blood mononuclear cells (PBMCs), then stimulated by incubation with anti-CD3 and anti-CD28 antibodies. Cells were labeled with Anti-Human CD71 (Transferrin Receptor) Antibody, Clone OKT9, followed by a rat anti-mouse IgG1 antibody, PE (filled histogram), or Mouse IgG1, kappa Isotype Control Antibody, Clone MOPC-21 (Catalog #60070), followed by a rat anti-mouse IgG1 antibody, PE (solid line histogram).

(B) Flow cytometry analysis of CD3+ cells isolated from human PBMCs, then stimulated by incubation with anti-CD3 and anti-CD28 antibodies. Cells were labeled with Anti-Human CD71 (Transferrin Receptor) Antibody, Clone OKT9, which had been pre-incubated for 5 min with a rat anti-mouse IgG1 antibody, PE (filled histogram), or Mouse IgG1, kappa Isotype Control Antibody, Clone MOPC-21, which had been pre-incubated for 5 min with a rat anti-mouse IgG1 antibody, PE (solid line histogram). Pre-incubating the primary and secondary antibodies helped minimize background binding of the secondary antibody to the anti-CD3 and anti-CD28 antibodies used for stimulating the cells.

Related Products

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

References

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