

ARG53896 anti-CD71 / Transferrin Receptor antibody [MEM-75] (PE)

Package: 100 tests
Store at: 4°C

Summary

Product Description	PE-conjugated Mouse Monoclonal antibody [MEM-75] recognizes CD71 / Transferrin Receptor
Tested Reactivity	Hu
Tested Application	FACS
Specificity	The clone MEM-75 reacts with CD71 antigen (transferrin receptor), a 95 kDa type II homodimeric transmembrane glycoprotein expressed on activated B and T lymphocytes, macrophages and erythroid precursors; it is lost on resting blood leukocytes. MEM-75 does not block binding of transferrin to the receptor. HLDA IV; WS Code A 45 HLDA V; WS Code T T-165
Host	Mouse
Clonality	Monoclonal
Clone	MEM-75
Isotype	IgG1
Target Name	CD71 / Transferrin Receptor
Species	Human
Immunogen	NALM-6 human pre-B cell line
Conjugation	PE
Alternate Names	TFR1; CD antigen CD71; CD71; T9; p90; TR; Trfr; Transferrin receptor protein 1; TRFR; sTfr; Tfr1; Tfr; TFR

Application Instructions

Application table	Application	Dilution
	FACS	20 µl / 10 ⁶ cells
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification Note	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Buffer	PBS, 15 mM Sodium azide and 0.2% (w/v) high-grade protease free BSA
Preservative	15 mM Sodium azide
Stabilizer	0.2% (w/v) high-grade protease free BSA

Storage instruction Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links [GeneID: 7037 Human](#)

[Swiss-port # P02786 Human](#)

Gene Symbol TFRC

Gene Full Name transferrin receptor

Background CD71 (transferrin receptor) is a type II transmembrane glycoprotein expressed as homodimer in erythroid blood cell line and in activated leukocytes. Upon binding of holotransferrin (complex of transferrin and iron ions), CD71 is internalized by clathrin-mediated endocytosis. Acidification of endosomes by vesicular membrane proton pumps leads to dissociation of iron ions, whereas transferrin (apotransferrin) remains associated with CD71 and recycles to the cell surface, where it is released upon exposure to normal pH. CD71 is also involved in uptake of non-transferrin bound iron.

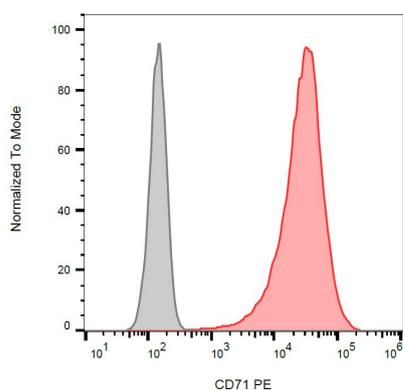
Function Cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied transferrin receptor into specialized endosomes. Endosomal acidification leads to iron release. The apotransferrin-receptor complex is then recycled to the cell surface with a return to neutral pH and the concomitant loss of affinity of apotransferrin for its receptor. Transferrin receptor is necessary for development of erythrocytes and the nervous system (By similarity). A second ligand, the hereditary hemochromatosis protein HFE, competes for binding with transferrin for an overlapping C-terminal binding site. [UniProt]

Research Area Cancer antibody; Cell Biology and Cellular Response antibody; Developmental Biology antibody; Immune System antibody; Metabolism antibody

Calculated Mw 85 kDa

PTM N- and O-glycosylated, phosphorylated and palmitoylated. The serum form is only glycosylated. Proteolytically cleaved on Arg-100 to produce the soluble serum form (sTfR). Palmitoylated on both Cys-62 and Cys-67. Cys-62 seems to be the major site of palmitoylation.

Images



ARG53896 anti-CD71 / Transferrin Receptor antibody [MEM-75] (PE)
FACS image

Flow Cytometry: K562 cells (red) and Human lymphocytes (grey, negative control) stained with ARG53896 anti-CD71 / Transferrin Receptor antibody [MEM-75] (PE).