

A6-235-T100

Monoclonal Antibody to CD71 Alexa Fluor® 647 conjugated (100 tests)

Clone:	MEM-75
Isotype:	Mouse IgG1
Specificity:	<p>The antibody 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.</p> <p>The antibody MEM-75 does not block binding of transferrin to the receptor. HLDA IV; WS Code A 45 HLDA V; WS Code T T-165</p>
Regulatory Status:	RUO
Immunogen:	NALM-6 human pre-B cell line
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with Alexa Fluor® 647 under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	<p>The reagent is designed for Flow Cytometry analysis of human blood cells using 4 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension.</p> <p>The content of a vial (0.4 ml) is sufficient for 100 tests.</p>
Expiration:	See vial label
Lot Number:	See vial label
Background:	<p>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.</p>

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**Antibodies**

- References:**
- *Rouault TA: How mammals acquire and distribute iron needed for oxygen-based metabolism. *PLoS Biol.* 2003 Dec;1(3):E79.
 - *Taketani S: Aquisition, mobilization and utilization of cellular iron and heme: endless findings and growing evidence of tight regulation. *Tohoku J Exp Med.* 2005 Apr;205(4):297-318.
 - *Graham RM, Chua AC, Herbison CE, Olynyk JK, Trinder D: Liver iron transport. *World J Gastroenterol.* 2007 Sep 21;13(35):4725-36.
 - *Graham RM, Reutens GM, Herbison CE, Delima RD, Chua AC, Olynyk JK, Trinder D: Transferrin receptor 2 mediates uptake of transferrin-bound and non-transferrin-bound iron. *J Hepatol.* 2008 Feb;48(2):327-34.
 - *Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).
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 - *Beck Z, Balogh A, Kis A, Izsépi E, Cervenak L, László G, Bíró A, Liliom K, Mocsár G, Vámosi G, Füst G, Matko J: New cholesterol-specific antibodies remodel HIV-1 target cells' surface and inhibit their in vitro virus production. *J Lipid Res.* 2010 Feb;51(2):286-96.

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