



Antibodies

1B-235-C025

## Monoclonal Antibody to CD71 Biotin conjugated (0.025 mg)

<b>Clone:</b>	MEM-75
<b>Isotype:</b>	Mouse IgG1
<b>Specificity:</b>	<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. The antibody MEM-75 does not block binding of transferrin to the receptor.</p> <p><b>HLDA IV; WS Code A 45</b> HLDA V; WS Code T T-165</p>
<b>Immunogen:</b>	NALM-6 human pre-B cell line
<b>Species Reactivity:</b>	Human
<b>Preparation:</b>	The purified antibody is conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin.
<b>Concentration:</b>	1 mg/ml
<b>Storage Buffer:</b>	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
<b>Storage / Stability:</b>	Store at 2-8°C. Do not use after expiration date stamped on vial label. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.
<b>Usage:</b>	<p>Biotinylated antibody is designed for indirect immunofluorescence analysis by Flow Cytometry.</p> <p>Suggested working dilution is 1:200. Indicated dilution is recommended starting point for use of this product. Working concentrations should be determined by the investigator.</p>
<b>Expiration:</b>	See vial label
<b>Lot Number:</b>	See vial label
<b>Background:</b>	<p><b>CD71</b> (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>
<b>References:</b>	<p>*Rouault TA: How mammals acquire and distribute iron needed for oxygen-based metabolism. <i>PLoS Biol.</i> 2003 Dec;1(3):E79.</p> <p>*Taketani S: Acquisition, mobilization and utilization of cellular iron and heme: endless findings and growing evidence of tight regulation. <i>Tohoku J Exp Med.</i> 2005 Apr;205(4):297-318.</p> <p>*Graham RM, Chua AC, Herbison CE, Olynyk JK, Trinder D: Liver iron transport. <i>World J Gastroenterol.</i> 2007 Sep 21;13(35):4725-36.</p> <p>*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. <i>J Hepatol.</i> 2008 Feb;48(2):327-34.</p> <p>*Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).</p> <p>*Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).</p>

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