

# Anti-Transferrin Receptor antibody [MEM-75] ab9179

★★★★★ [1 Abreviews](#) [9 References](#) [4 Images](#)

### Overview

<b>Product name</b>	Anti-Transferrin Receptor antibody [MEM-75]
<b>Description</b>	Mouse monoclonal [MEM-75] to Transferrin Receptor
<b>Host species</b>	Mouse
<b>Specificity</b>	Human CD71 (transferrin receptor). This antibody does not block the binding of transferrin to the receptor.
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Tissue, cells or virus corresponding to Human Transferrin Receptor. Pre-B cell line NALM-6
<b>Positive control</b>	This antibody gave a positive result in IF in the following Formaldehyde fixed cell line: DU145 and HeLa
<b>General notes</b>	<p>This product was changed from ascites to tissue culture supernatant on 24th January 2018. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	<p>pH: 8.0</p> <p>Preservative: 0.097% Sodium azide</p> <p>Constituent: PBS</p>
<b>Purity</b>	Protein A purified
<b>Purification notes</b>	Purified from TCS. Purity >95% by SDS-PAGE.

Clonality	Monoclonal
Clone number	MEM-75
Myeloma	unknown
Isotype	IgG1
Light chain type	unknown

## Applications

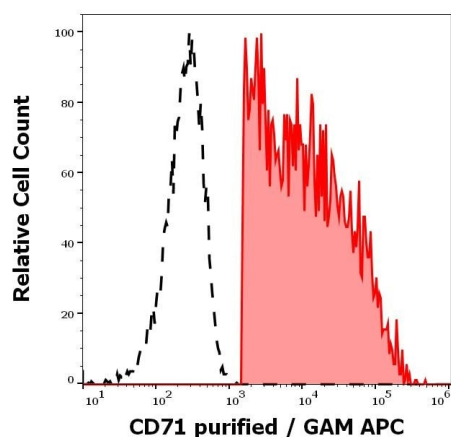
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab9179 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		Use 1µg for 10 <sup>6</sup> cells. <b>ab170190</b> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★★ (1)	Use at an assay dependent concentration.

## Target

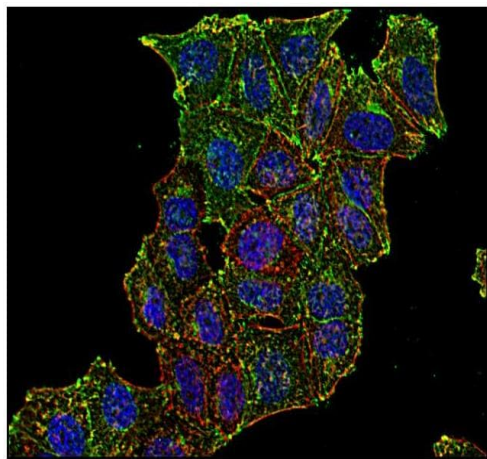
<b>Function</b>	Cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied transferrin receptor into specialized endosomes. Endosomal acidification leads to iron release. The apotransferrin-receptor complex is then recycled to the cell surface with a return to neutral pH and 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. Positively regulates T and B cell proliferation through iron uptake (PubMed:26642240). (Microbial infection) Acts as a receptor for new-world arenaviruses: Guanarito, Junin and Machupo virus.
<b>Involvement in disease</b>	Immunodeficiency 46
<b>Sequence similarities</b>	Belongs to the peptidase M28 family. M28B subfamily. Contains 1 PA (protease associated) domain.
<b>Post-translational modifications</b>	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.
<b>Cellular localization</b>	Secreted and Cell membrane. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

## Images



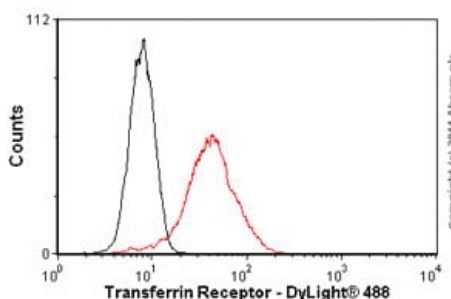
Flow Cytometry - Anti-Transferrin Receptor antibody  
[MEM-75] (ab9179)

Flow cytometric analysis of Human PHA stimulated Peripheral Blood cells labelling Transferrin Receptor with ab9179 at 0.56 ug/ml showing separation of human CD3 positive CD71 positive lymphocytes (red-filled) from CD3 negative CD71 negative lymphocytes (black-dashed).



Immunocytochemistry/ Immunofluorescence - Anti-  
Transferrin Receptor antibody [MEM-75] (ab9179)

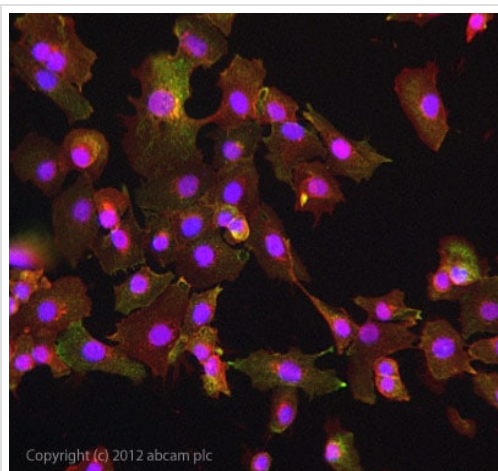
Immunocytochemistry staining of CD71 in human HeLa cell line using anti-CD71 (green). Actin cytoskeleton decorated by phalloidin (red) and cell nuclei stained with DAPI (blue).



Flow Cytometry - Anti-Transferrin Receptor antibody  
[MEM-75] (ab9179)

Overlay histogram showing Jurkat cells stained with ab9179 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab9179, 1µg/1x10<sup>6</sup> cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) ([ab96879](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (2µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a diminished signal in Jurkat cells fixed with methanol (5 min)/permeabilized with 0.1% PBS-

Tween used under the same conditions.



Immunocytochemistry/ Immunofluorescence - Anti-  
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ab9179 stained DU145 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab9179 at 5µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- mouse (**ab96879**) IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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