

Product datasheet

Anti-Transferrin Receptor antibody [MEM-75], prediluted (APC) ab64672

Overview

Product name	Anti-Transferrin Receptor antibody [MEM-75], prediluted (APC)
Description	Mouse monoclonal [MEM-75] to Transferrin Receptor, prediluted (APC)
Host species	Mouse
Conjugation	APC. Ex: 645nm, Em: 660nm
Specificity	ab64672 reacts with CD71 antigen (transferrin receptor), a 95 kDa type II homodimeric transmembrane glycoprotein expressed on activated B and lymphocytes, macrophages and erythroid precursors; it is lost on resting blood leukocytes. ab64672 does not block binding of transferrin to the receptor.
Tested applications	Suitable for: Flow Cyt
Species reactivity	Reacts with: Human
Immunogen	NALM-6 human pre-B cell line

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	pH: 7.4 Preservative: 0.097% Sodium azide Constituents: PBS, 0.2% BSA
Purity	Size exclusion
Purification notes	The purified antibody (>95% by SDS-PAGE) is conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use.
Clonality	Monoclonal
Clone number	MEM-75
Isotype	IgG1

Applications

Our [Abpromise guarantee](#) covers the use of **ab64672** 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
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Flow Cyt

Application notes

Flow Cyt: Use 10µl for 10⁶ cells or 100µl of whole blood.

Not yet tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

Target

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. 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.

Involvement in disease

Immunodeficiency 46

Sequence similarities

Belongs to the peptidase M28 family. M28B subfamily.

Contains 1 PA (protease associated) domain.

Post-translational modifications

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.

Cellular localization

Secreted and Cell membrane. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

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