

TECHNICAL DATA SHEET

CyFlow™ CD71 Purified Anti-Hu; Clone MEM-189

REF AQ912926

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD71
Alternative Names	T9, TFR, TRFR
Clone	MEM-189
Clonality	monoclonal
Format	Purified
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	KG1 human acute myelogenous leukaemia cell line

Specificity

The mouse monoclonal antibody MEM-189 recognizes CD71 antigen, a 95 kDa type II homodimeric transmembrane glycoprotein expressed on activated B and lymphocytes, macrophages and erythroid

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

precursors; it is lost on resting blood leukocytes. The antibody MEM-189 does not block binding of transferrin to the receptor.

Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Immunoprecipitation
- Western blot

Storage Buffer

The reagent is provided in Tris buffered saline (TBS) solution, pH ≈8.0, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

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.

References

- Kishimoto T, Goyert S, Kikutani H, Mason D, Miyasaka M, Moretta L, Ohno T, Okumura K, Shaw S, Springer TA, Sugamura K, Sugawara H, von dem Borne AEGK, Zola H (Eds): Leucocyte Typing VI. Garland Publishing Inc, New York. 1997; 1-1342. < NLM ID: 9712219 >
- Rouault TA: How mammals acquire and distribute iron needed for oxygen-based metabolism. PLoS Biol. 2003 Dec; 1(3):E79. < PMID: 14691550 >

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

- Taketani S: Acquisition, 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. < PMID: 15750326 >
- Graham RM, Chua AC, Herbison CE, Olynyk JK, Trinder D: Liver iron transport. World J Gastroenterol. 2007 Sep 21; 13(35):4725-36. < PMID: 17729394 >
- Graham RM, Reuters 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. < PMID: 18083267 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com