

Monoclonal Antibody to CD71 / TFRC - FITC

Alternate names:	TfR1, Transferrin receptor protein 1, p90
Catalog No.:	SM289F
Quantity:	0.1 mg
Concentration:	0.1 mg/ml
Background:	CD71 is a homodimeric type II transmembrane protein, expressed by all proliferating cells and cells with a requirement for iron, including reticulocytes and capillary endothelium in brain. Transferrin receptor (CD71), transferrin and ferritin have been identified as specialised proteins which control the uptake, transport and storage of free iron in tissues, thereby maintaining iron homeostasis. An imbalance in iron homeostasis within the brain has been linked with the neurodegenerative diseases, Alzheimers, Parkinsons, Huntingtons and Multiple Sclerosis.
Uniprot ID:	Q99376
NCBI:	10116
Host / Isotype:	Mouse / IgG2a
Clone:	OX-26
Immunogen:	PHA activated rat lymphocytes. Spleen cells from immunised Balb/c mice were fused with cells from the NS1 mouse myeloma cell line.
Format:	State: Liquid purified IgG Purification: Affinity chromatography on Protein G Buffer System: PBS, pH7.4 containing 0.09% Sodium Azide and 1% Bovine Serum Albumin Label: FITC – Fluorescein Isothiocyanate Isomer 1
Applications:	Flow cytometry. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody recognises CD71, also known as transferrin receptor. Clone MRC OX-26 also binds to a number of non-dividing normal tissues. The balance between a sufficient amount of iron uptake and prevention of accumulation of excess iron within a cell, is vitally important to maintain cellular functions such as oxygen and electron transport and mitochondrial energy metabolism, whilst preventing permanent cell and tissue damage. Clone MRC OX-26 is reported as suitable for use in Electron Microscopy. Species: Rat. Other species not tested.
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. This product is photosensitive and should be protected from light. Shelf life: one year from despatch.

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com

- General References:**
1. Jefferies, W.A. et al. (1985) Analysis of lymphopoietic stem cells with a monoclonal antibody to the rat transferrin receptor. *Immunology* 54: 333-341.
 2. Yefimova, M.G. et al. (2002) Impaired retinal iron homeostasis associated with defective phagocytosis in Royal College of Surgeons rats. *Inv. Opth. & Vis. Sci.* 43: 537-545.
 3. Jefferies, W.A. et al. (1984) Transferrin receptor on endothelium of brain capillaries. *Nature* 312: 162-163.
 4. Lipardi, C. et al (2002) Differential recognition of a tyrosine-dependent signal in the basolateral and endocytic pathways of thyroid epithelial cells. *Endocrinology* 143: 1291-1301.

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com