Mouse Anti-Human TFRC Monoclonal Antibody

Mouse, Monoclonal (TFRC)

Cat. No. DMAB2520MH
Lot. No. (See product label)

PRODUCT INFORMATION

Antigen Description: Transferrin receptor protein 1 (TfR1) also known as (Cluster of Differentiation 71) (CD71) is a protein that in humans is encoded by the TFRC gene. TfR1 is required for iron delivery from transferrin to cells.
Isotype: IgG_1
Specificity: CD71 recognizes the human transferrin receptor (Mr. 190 kDa). The transferrin receptor is a cell surface glycoprotein related to cell proliferation. Up-regulation of the CD71 antigen is associated with actively dividing cells. Transferrin receptors are also present on reticulocytes, but are lost during maturation into erythrocytes.
Clone: U57/15
Host animal: Mouse
Format: Phyco, Liquid
Purification: R-phycoerythrin has been covalently conjugated to a Protein G purified immunoglobulin fraction and chromatographically purified to remove unconjugated dye and antibody, while achieving a fluorochrome/protein (F/P) molar ratio between 0.7-1.3. R-phycoerythrin has a maximum absorbance 565.5nm and a emission maximum at 578nm.
Application: May be used to identify activated lymphocytes. The CD71 antibody may be used in studies of erythropoiesis. We recommend using 1µg to stain 1.0 x 10^6 cells in flow cytometric applications. Each laboratory should determine an optimum working titer for use in its particular application. Centrifuge before opening to ensure complete recovery of vial contents.

PACKAGING

Concentration: 100µg/ml (OD280nm)
Buffer: 0.01M PBS, pH 7.2, containing 1.0% BSA.
Preservative: 0.09% Sodium azide
Storage: Store (protected from light) at 2-8°C. **DO NOT FREEZE.**
Warning: This product contains sodium azide, which has been classified as Xn (Harmful), in European Directive 67/548/EEC in the concentration range of 0.1 – 1.0 %. When disposing of this reagent through lead or copper plumbing, flush with copious volumes of water to prevent azide build-up in drains.

ANTIGEN GENE INFORMATION

Gene Name: TFRC transferrin receptor (p90, CD71) [Homo sapiens]
Official Symbol: TFRC
Synonyms: TFR; CD71; TFR1; TRFR; TFRC; ransferrin receptor protein 1; T9; TR; p90; OTTHUMP00000208523; OTTHUMP00000208524; OTTHUMP00000208525
GeneID: 7037
mRNA Refseq: NM_001128148
Protein Refseq: NP_001121620
MIM: 190010
UniProt ID: P02786
Chromosome Location: 3q26.2-qter
Pathway: Clathrin derived vesicle budding, organism-specific biosystem; Endocytosis, organism-specific biosystem; Endocytosis, conserved biosystem; FOXA2 and FOXA3 transcription factor networks, organism-specific biosystem; Golgi Associated Vesicle Biogenesis, organism-specific biosystem; HIF-1-alpha transcription factor network, organism-specific biosystem; Hematopoietic cell lineage, organism-specific biosystem; Hematopoietic cell lineage, conserved biosystem; Iron uptake and transport, organism-specific biosystem; Membrane Trafficking, organism-specific biosystem; Phagosome, organism-specific biosystem; Phagosome, conserved biosystem; Transferrin endocytosis and recycling, organism-specific biosystem; Transmembrane transport of small molecules, organism-specific biosystem; Validated targets of C-MYC transcriptional activation, organism-specific biosystem; trans-Golgi Network Vesicle Budding, organism-specific biosystem
Function: Hsp70 protein binding; chaperone binding; peptidase activity; receptor activity; transferrin receptor activity

REFERENCES

1. Trowbridge, S.I., et al (1981) Proc. Nat'l. Acad. Sci. 78: 3039.
2. Iacopetta, B.J. et al (1983) J. Histochem. Cytochem. 31: 336.

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