CD71 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	CD71, Monoclonal Antibody
Full Product Name	CD71(Tfrc, Transferrin Receptor, TfR, TfR1, TR, Transferrin receptor protein 1, Trfr) (PE)
Product Gene Name	anti-CD71 antibody
Clonality	Monoclonal
Isotype	IgG2a
Clone Number	6A335
Host	Mouse
Species Reactivity	Rat
Form/Format	Supplied as a liquid in PBS, pH 7.2. Labeled with R-Phycoerythrin (PE).
Purity/Purification	Purified by protein G affinity chromatography from tissue culture supernatant.
Specificity	Recognizes rat transferrin receptor (CD71). Labels dividing cells of various types but also binds to a number of non-dividing normal tissues (1) and endothelium of brain capillaries.
Preparation and Storage	Store at 4 degree C. Do Not Freeze.
Molecular Weight	70,153 Da
3D Structure	ModBase 3D Structure for Q99376
Immunogen	PHA activated rat lymphocytes
Conjugate	PE
Product Categories/Family for anti-CD71 antibody	Antibodies; CD Markers
Applications Tested/Suitable for anti-CD71 antibody	Flow Cytometry (FC/FACS), Immunofluorescence (IF), Immunohistochemistry (IHC)
Related Product Information for anti-CD71 antibody	MBS6251650 is an antibody targeting CD71. Also known as CD71(Tfrc, Transferrin Receptor, TfR, TfR1, TR, Transferrin receptor protein 1, Trfr) (PE). Reactive in Rat. Host: Mouse.
Product References and Citations for anti-CD71 antibody	1. Jefferies, W.A. et al. (1985) Immunology 54: 333-341. 2. Yefimova, M.G. et al. (1984) Inv. Opth. & Vis. Sci. 43: 537-545. 3. Jefferies, W.A. et al. (1984) Nature 312: 162-163.4. Lipardi, C. et al. (2002) Endocrinology. 143: 1291-1301. 5. Stevenson, K.S. et al. (2009) Stem Cells Dev. 18: 1389-98. 6. Jung, S.H. et al. (2008) Exp Physiol. 93: 407-14. 7. Chen, X. et al. (2000) Carcinogenesis. 21: 257-63. 8. Huang, E. et al. (2009) Acta Histochem Cytochem. 42: 129-36. 9. Petrusca, D.N. et al. (2010) J Biol Chem. 285: 40322-32.10. Wu, Y.J. et al. (2007) Am J Physiol Cell Physiol. 293: C1698-708. 11. Yefimova M.G. et al. (2002) Invest Ophthalmol Vis Sci. 43: 537-45. 12. Gosk, S. et al. (2004) J Cereb Blood Flow Metab. 24: 1193-204. 13. Pang, Z. (2008) J Control Release. 128: 120-7. 14. Moos, T, Morgan, E.H. (2001) J Neurochem. 79: 119-29. 15. Moos, T. et al. (2003) Front Biosci. 8: a102-9. 16. Fabriek, B.O. et al. (2007) Blood. 109: 5223-9. 17. Rathnasamy, G. et al.et al. (2011) J. Neurosci 31: 17982-95.
Other Notes	Small volumes of anti-CD71 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD71. It may not necessarily be applicable to this product.

NCBI GI #	20140355
NCBI GeneID	64678
NCBI Accession #	Q99376.1
UniProt Primary Accession #	Q99376
UniProt Related Accession #	Q99376
NCBI Official Full Name	Transferrin receptor protein 1
NCBI Official Synonym Full Names	transferrin receptor
NCBI Official Symbol	Tfrc
NCBI Official Synonym Symbols	Trfr
UniProt Protein Name	Transferrin receptor protein 1
UniProt Synonym Protein Names	CD_antigen: CD71
UniProt Gene Name	Tfrc
UniProt Synonym Gene Names	Trfr; TR; TfR; TfR1; Trfr
UniProt Entry Name	TFR1_RAT
NCBI Protein Information	transferrin receptor protein 1; TR; tfR; tfR1
NCBI Summary for CD71	receptor for transferrin; involved in regulating stellate cell activation [RGD, Feb 2006]
UniProt Comments for CD71	TfR: the transferrin receptor. Regulates the cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied receptors 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. Protein type: Membrane protein, integral; Receptor, misc.; Cell surface Cellular Component: extracellular space; cell surface; intracellular membrane-bound organelle; mitochondrion; cell; recycling endosome membrane; cytoplasmic membrane-bound vesicle; extracellular region; integral to membrane; coated pit; recycling endosome; perinuclear region of cytoplasm; melanosome; plasma membrane; vesicle; endosome; external side of plasma membrane Molecular Function: identical protein binding; transferrin receptor activity; chaperone binding; double-stranded RNA binding; Hsp70 protein binding Biological Process: receptor-mediated endocytosis; response to inorganic substance; response to retinoic acid; cellular iron ion homeostasis; transferrin transport; osteoclast differentiation; regulation of cell proliferation; response to organic substance; response to manganese ion; response to copper ion; acute-phase response; response to hypoxia; positive regulation of bone resorption; regulation of cell growth; response to iron ion; response to nutrient; aging
Research Articles on CD71	**1.** Whole-genome profiling reveals that increasing dietary protein from 5 to 40% increass duodenal transcript expression of divalent metal transporter 1 (DMT1) 3.2-fold, duodenal cytochrome b (Dcytb) 1.8-fold, and transferrin receptor (TfR) 1.8-fold.
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