Transferrin (TF) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Transferrin (TF), Polyclonal Antibody
Full Product Name	Transferrin (Beta-1 metal-binding globulin, Siderophilin) (MaxLight 650)
Product Gene Name	anti-TF antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. Labeled with MaxLight650.
Purity/Purification	Purified by Immunoaffinity chromatography.
Specificity	Recognizes human Transferrin. No crossreactivity with other proteins.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight650 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	77,064 Da
Chromosome Location	Chromosome: 3; NC_000003.11 (133464977..133497850). Location: 3q22.1
OMIM	190000
3D Structure	ModBase 3D Structure for P02787
Immunogen	Oryza sativa-derived human Transferrin recombinant protein (Position: V20-P698).
Conjugate	MaxLight650
Note	Preservative Free
Product Categories/Family for anti-TF antibody	Antibodies; Transferrin
Applications Tested/Suitable for anti-TF antibody	FLISA, Western Blot (WB), Immunohistochemistry (IHC) Paraffin
Application Notes for anti-TF antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-TF antibody	Transferrins are iron-binding blood plasma glycoproteins that control the level of free iron in biological fluids. In humans, it is encoded by the TF gene. In humans, transferrin consists of a polypeptide chain containing 679 amino acids. The protein is composed of alpha helices and beta sheets to form two domains. The N-and C-terminal sequences are represented by globular lobes and between the two lobes is an iron-binding site. Transferrin is a glycoprotein that binds iron very tightly but reversibly. Although iron bound to transferrin is less than 0.1% (4 mg) of the total body iron, it is the most important iron pool, with the highest rate of turnover (25 mg/24 h). Transferrin has a molecular weight of around 80 kDa and contains 2 specific high-affinity Fe(III) binding sites. The affinity of transferrin for Fe(III) is extremely high (1023 M?1 at pH 7.4) but decreases progressively with decreasing pH below neutrality.

Product References and Citations for anti-TF antibody	1. Asada-Senju, M., Maeda, T., Sakata, T., Hayashi, A., Suzuki, T.Molecular analysis of the transferrin gene in a patient with hereditary hypotransferrinemia.J. Hum. Genet. 47: 355-359, 2002. 2. Delanghe, J., Verstraelen, H., Pynaert, I., Debels, L., Taes, Y., Verhasselt, B., De Henauw, S., Temmerman, M.Human transferrin G277S mutation and iron deficiency in pregnancy. (Letter)Brit. J. Haemat. 132: 249-250, 2005. 3. Pang, H., Koda, Y., Soejima, M., Kimura, H.Identification of a mutation (A1879G) of transferrin from cDNA prepared from peripheral blood cells.Ann. Hum. Genet. 62: 271-274, 1998.
Other Notes	Small volumes of anti-TF 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.
Searchable Terms for TF purchase	MBS6404707 is an antibody targeting TF. Also known as Transferrin (Beta-1 metal-binding globulin, Siderophilin) (MaxLight 650). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

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

NCBI GI #	339453
NCBI GeneID	7018
NCBI Accession #	AAA61140.1
UniProt Primary Accession #	P02787
UniProt Secondary Accession #	O43890; Q1HBA5; Q9NQB8; Q9UHV0
UniProt Related Accession #	P02787
NCBI Official Full Name	transferrin
NCBI Official Synonym Full Names	transferrin
NCBI Official Symbol	TF
NCBI Official Synonym Symbols	TFQTL1; PRO1557; PRO2086
UniProt Protein Name	Serotransferrin
UniProt Synonym Protein Names	Beta-1 metal-binding globulin; Siderophilin
Protein Family	Transferrin
UniProt Gene Name	TF
UniProt Synonym Gene Names	Transferrin
UniProt Entry Name	TRFE_HUMAN
NCBI Protein Information	serotransferrin; siderophilin; beta-1 metal-binding globulin
NCBI Summary for TF	This gene encodes a glycoprotein with an approximate molecular weight of 76.5 kDa. It is thought to have been created as a result of an ancient gene duplication event that led to generation of homologous C and N-terminal domains each of which binds one ion of ferric iron. The function of this protein is to transport iron from the intestine, reticuloendothelial system, and liver parenchymal cells to all proliferating cells in the body. This protein may also have a physiologic role as granulocyte/pollen-binding protein (GPBP) involved in the removal of certain organic matter and allergens from serum. [provided by RefSeq, Sep 2009]

UniProt Comments for TF	TF: Transferrins are iron binding transport proteins which can bind two Fe(3+) ions in association with the binding of an anion, usually bicarbonate. It is responsible for the transport of iron from sites of absorption and heme degradation to those of storage and utilization. Serum transferrin may also have a further role in stimulating cell proliferation. Defects in TF are the cause of atransferrinemia (ATRAF). Atransferrinemia is rare autosomal recessive disorder characterized by iron overload and hypochromic anemia. Belongs to the transferrin family. Protein type: Secreted; Secreted, signal peptide Chromosomal Location of Human Ortholog: 3q22.1 Cellular Component: extracellular space; cell surface; early endosome; cytoplasmic membrane-bound vesicle; extracellular region; coated pit; recycling endosome; endocytic vesicle; perinuclear region of cytoplasm; apical plasma membrane; late endosome; basal plasma membrane; endosome membrane; vesicle Molecular Function: protein binding; ferric iron binding; ubiquitin protein ligase binding Biological Process: platelet activation; retinal homeostasis; platelet degranulation; cellular iron ion homeostasis; transferrin transport; blood coagulation; transmembrane transport Disease: Atransferrinemia
Research Articles on TF	**1.** The structures of hTF observed here represent key conformers captured in the dynamic nature of the transferrin family proteins and provide a structural basis for understanding the mechanism of metal uptake and release in transferrin families.
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