



Anti-TF polyclonal antibody (DPAB2678RH)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Rabbit polyclonal to human transferrin.
Antigen Description	<p>Transferrin (Tf) is a blood plasma protein for iron delivery. Transferrin functions to deliver iron to cells via a receptor-mediated endocytotic process as well as to remove toxic free iron from the blood and to provide an antibacterial, low-iron environment. Tf protein contains 679 amino acid residues and has a molecular weight of ~79 kD, having 2 specific high affinity Fe(III) binding sites. The molecule is stabilized by 19 intra-chain disulfide bonds and is protected by three carbohydrate side chains. 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). When a Tf protein loaded with iron encounters a transferrin receptor (TfR) on the surface of a cell it binds to it and is consequently transported into the cell by endosomes. ATP-dependent proton pumps then force H⁺ ions into the endosomes reducing the pH to 5.5, thus promoting iron release and conformational change of the receptor enabling apo-transferrin to remain bound. The binding characteristics of the apo-Tf-TfR complex are such that the apo-Tf is released only once the complex reaches the cell surface. Cells expressing large amounts of TfR are correspondingly competent in securing iron from Tf. Rapidly proliferating cells, as in malignancy, generally express TfR1 abundantly. Several studies have shown a link between Tf polymorphism and susceptibility to disease. These include the rare autosomal recessive disorder atransferrinemia, cardiovascular disease (CVD) and Alzheimer's disease.</p>
Immunogen	Protein purified from Human plasma
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human
Conjugate	Unconjugated
Applications	WB, IP

Cellular Localization	Secreted
Positive Control	Human plasma
Format	HEPES with 0.15M NaCl, 0.01% BSA, 0.03% sodium azide, and 50% glycerol.
Size	100 µl
Preservative	0.03% Sodium Azide
Storage	Store for 1 year at -20 °C from date of shipment.

GENE INFORMATION

Gene Name	TF transferrin [Homo sapiens]
Synonyms	TF; transferrin; TFQTL1; PRO1557; PRO2086; Transferrin; serotransferrin; siderophilin; Siderophilin; beta-1 metal-binding globulin; Beta-1 metal-binding globulin; DKFZp781D0156; EC 3.4.21; OTTHUMP00000197155
Entrez Gene ID	7018
Protein Refseq	NP_001054
UniProt ID	A0PJA6
Chromosome Location	3q22.1
Pathway	EPHB forward signaling; HIF-1-alpha transcription factor network; Hemostasis; Iron uptake and transport; Mineral absorption; Platelet activation; Platelet degranulation; Response to elevated platelet cytosolic Ca2+; Transferrin endocytosis and recycling; Transmembrane transport of small molecules
Function	ferric iron binding; metal ion binding; protein binding; ubiquitin protein ligase binding