

Basic Information

Product Name	Anti-Transferrin/TF Antibody		
Gene Name	TF		
Source	Rabbit		
Isotype	IgG		
Species Reactivity	human		
Tested Application	WB,IHC,ELISA		
Contents	500 ug/ml antibody with PBS , 0.02% NaN3 , 1 mg BSA and 50% glycerol.		
Immunogen	Oryza sativa-derived human Transferrin recombinant protein(Position: V20-P698).		
concentration	500 ug/ml		
Observed MW	76KD		
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 ELISA 1:10-1000 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.		

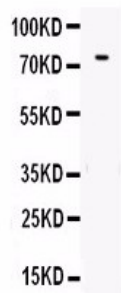
Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

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(10^{23} M⁻¹ at pH 7.4) but decreases progressively with decreasing pH below neutrality.

Selected Validation Data



Western blot analysis of Transferrin using anti- Transferrin antibody (RP1022). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane : Recombinant Human Transferrin Protein 0.5ng After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- Transferrin antigen affinity purified polyclonal antibody (Catalog # RP1022) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Transferrin at approximately 76KD. The expected band size for Transferrin is at 76KD.