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# Transferrin Protein (TF) (AA 20-697) (Fc Tag)

2 Images



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Quantity:	100 μg
Target:	Transferrin (TF)
Protein Characteristics:	AA 20-697
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Transferrin protein is labelled with Fc Tag.

### **Product Details**

Sequence:	AA 20-697	
Purity:	>95 % as determined by SDS-PAGE.	
Endotoxin Level:	Less than 0.1 EU per μg by the LAL method.	

## **Target Details**

Target:	Transferrin (TF)
Alternative Name:	Transferrin (TF Products)
Background:	Transferrin is also known as Serotransferrin, Beta-1 metal-binding globulin, TF, and is iron-
	binding blood plasma glycoproteins that control the level of free iron in biological fluids.
	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). 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. When not bound to iron, it is known as "apo-transferrin". In humans, transferrin consists of a polypeptide chain containing 679 amino acids. It is a complex composed of alpha helices and beta sheets to form two domains (the first situated in the N-terminus and the second in the C-terminus). The N- and C- terminal sequences are represented by globular lobes and between the two lobes is an iron-binding site. The liver is the main source of manufacturing transferrin, but other sources such as the brain also produce this molecule. Transferrin is also associated with the innate immune system. Transferrin is found in the mucosa and binds iron, thus creating an environment low in free iron that impedes bacteria survival in a process called iron withholding. The level of transferrin decreases in inflammation. The metal binding properties of transferrin have a great influence on the biochemistry of plutonium in humans. Transferrin has a bacteriocidal effect on bacteria, in that it makes Fe3+ unavailable to the bacteria. Carbohydrate deficient transferrin increases in the blood with heavy ethanol consumption and can be monitored via laboratory testing.

Molecular Weight: 101.8 kDa

NCBI Accession: NP\_598738

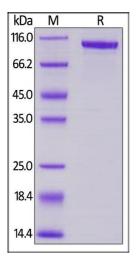
Pathways: Transition Metal Ion Homeostasis

### **Application Details**

Restrictions: For Research Use only

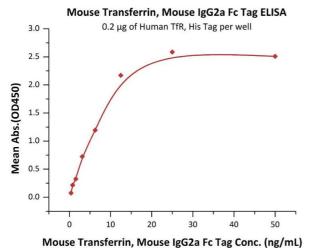
#### Handling

Format:	Lyophilized
Buffer:	Tris with Glycine, Arginine and NaCl, pH 7.5
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C



#### **SDS-PAGE**

**Image 1.** Mouse Transferrin, Mouse IgG2a Fc Tag, low endotoxin on under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95 %.



#### **ELISA**

**Image 2.** Immobilized Human TfR, His Tag (ABIN2180830,ABIN2180829) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Mouse Transferrin, Mouse IgG2a Fc Tag, low endotoxin (ABIN5955023,ABIN6253541) with a linear range of 0.4-12.5 ng/mL (QC tested).