Datasheet for ABIN7317692

Transferrin Protein (TF) (His tag)

Go to Product page

Overview

Quantity:	100 µg
Target:	Transferrin (TF)
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This Transferrin protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human Transferrin Protein (His Tag)(Active)
Sequence:	Met 1-Pro 698
Characteristics:	A DNA sequence encoding the human transferrin (NP_001054.1) (Met 1-Pro 698) was fused with a polyhistidine tag at the C-terminus.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg of the protein as determined by the LAL method.
Biological Activity Comment:	1. Measured by its binding ability in a functional ELISA. Immobilized human CD71 at 10 µg/ml (100 µl/well) can bind human Transferrin. The EC50 of human Transferrin is 5.6 ng/mL.2. Measured in a serum-free cell proliferation assay using MCF-7 human breast cancer cells. Karey, K.P. et al. (1988) Cancer Research 48:4083. The ED50 for this effect is typically 0.01-0.04 µg/mL.

Target Details

Target:	Transferrin (TF)
Alternative Name:	Transferrin (TF Products)
Background:	Background: Transferrin is a glycoprotein with an approximate molecular weight of 76.5 kDa. This glycoprotein 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 Transferrin 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. Transferrins are iron binding transport proteins which bind Fe3+ ion in association with the binding of an anion, usually bicarbonate. This transferrin binds only one Fe3+ ion per protein molecule. Transports iron ions from the hemolymph into the eggs during the vitellogenic stage. 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. When a transferrin loaded with iron encounters with a transferring receptor on cell surface, transferring binds to it and, as a consequence, is transported into the cell in a visicle by receptor-mediated endocytosis. The PH is reduced by hydrogen iron pumps. The lower pH causes transferrin to release its iron ions. The receptor is then transported through the endocytic cycle back to the cell surface, ready for another round of iron uptake. Each transferrin molecule has the ability to carry two iron ions in the ferric form. Synonym: Serotransferrin,Transferrin,Beta-1 metal-binding globulin,Siderophilin,TF,HEL-S-71p,PRO1557,PRO2086,TFQTL1
Molecular Weight:	76.6 kDa
NCBI Accession:	NP_001054
Pathways:	Transition Metal Ion Homeostasis

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.

Handling

Buffer:	Lyophilized from sterile PBS, pH 7.4
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.