Active Recombinant Human Transferrin

Cat. No. TF-461H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human transferrin was expressed in modified*human 293 cells*.
Species	Human
Source	HEK293
Description	Human transferrin is a single-chain glycoprotein. It has two potential N-linked glycosylation sites and one potential O-linked glycosylation site. Transferrin binds two Fe3+ ions, with high affinity (Kd ≈ 10−20 M), together with two synergistically bound CO32- ions. The protein is mainly synthesized in the liver and secreted into the plasma. Lower amounts are also produced in other organs, such as the testis and brain. Transferrin is also capable of acting as a cytokine and has additional functions that may not be related to its iron-carrying capacity. Other roles for transferrin include acting as a neurotrophic factor in myotubule formation and as an angiogenic factor in promoting the migration and invasion of endothelial cells.
Molecular Mass	Under reducing conditions Transferrin migrates as a broad band between 70 and 80 kDa in SDS-PAGE due to post-translational modifications, in particular glycosylation. This compares with unmodified Transferrin that has a predicted monomeric molecular mass of 75.2 kDa.
PI	Transferrin separates into a number of isoforms with a pI between 6.0 and 8.0 in 2D PAGE due to post-translational modifications, in particular glycosylation. This compares with the unmodified Transferrin that has a predicted pI of 6.8.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

% Carbohydrate	Transferrin consists of 5-20% carbohydrate by weight.
Glycosylation	Transferrin contains N- and O-linked oligosaccharides.
Purity	>95%, as determined by SDS-PAGE and visualized by silver stain.
Formulation	When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
Reconstitution	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.
Storage	Lyophilized products should be stored at 2 to 8°C. Following reconstitution short-term storage at 4°C is recommended, and longer-term storage of aliquots at -18 to -20°C.
Activity	The activity of Transferrin was measured by its ability to support the growth of HepG2 cells under conditions of reduced serum. Typically 0.1 to 1 g enhances cell proliferation.

GENE INFORMATION

Gene Name	TF transferrin [Homo sapiens]
Synonyms	transferrin; PRO1557; PRO2086; DKFZp781D0156; TF; Siderophilin; Transferrin; Beta-1 metal-binding globulin
Gene ID	7018
mRNA Refseq	NM_001063
Protein Refseq	NP_001054

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

MIM	190000
UniProt ID	P02787
Chromosome Location	3q22.1
Pathway	Hemostasis
Function	ferric iron binding; metal ion binding; protein binding
PDB rendering based on 1a8e.	

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA