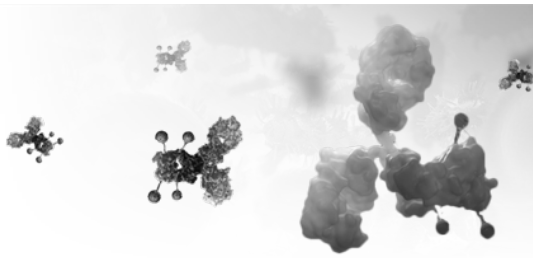

Recombinant Human Transferrin Protein [His] (DAGC471)

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

PRODUCT INFORMATION

Product Overview	A DNA sequence encoding the human transferrin (NP_001054.1) (Met 1-Pro 698) was fused with a polyhistidine tag at the C-terminus.
Species	Human
Purity	> 95 % as determined by SDS-PAGE
Conjugate	His
Applications	ELISA
Predicted N terminal	Val 20
Molecular Weight	The secreted recombinant human transferrin comprises 690 amino acids with a predicted molecular mass of 76.6 kDa. It migrates as an approximately 74 kDa band in SDS-PAGE under reducing conditions due to glycosylation.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method
Format	Lyophilized
Size	50 μg, 100 μg
Buffer	Lyophilized from sterile PBS, pH 7.4
Preservative	None
Storage	Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

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BACKGROUND

Introduction	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.
Keywords	TF; Transferrin

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