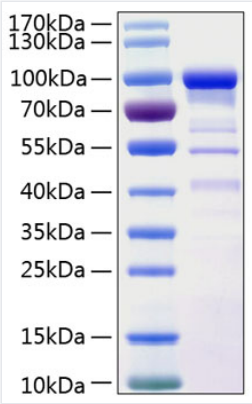
sTfR Human Active Protein

PRODUCT OVERVIEW

Product Name	sTfR, Active Protein
Full Product Name	Recombinant Human sTfR Protein
Product Gene Name	sTfR active protein
Product Synonym Gene Name	TFRC
Product Synonym Names	CD71; IMD46; p90; T9; TFR; TFR1; TR; TRFR
Sequence	CKGVEPKTEC ERLAGTESPV REEPGEDFPA ARRLYWDDLK RKLSEKLDST DFTGTIKLLN ENSYVPREAG SQKDENLALY VENQFREFKL SKVWRDQHFV KIQVKDSAQN SVIIVDKNGR LVYLVENPGG YVAYSKAATV TGKLVHANFG TKKDFEDLYT PVNGSIVIVR AGKITFAEKV ANAESLNAIG VLIYMDQTKF PIVNAELSFF GHAHLGTGDP YTPGFPSFNH TQFPPSRSSG LPNIPVQTIS RAAAEKLFGN MEGDCPSDWK TDSTCRMVTS ESKNVKLTVS NVLKEIKILN IFGVIKGFVE PDHYVVVGAQ RDAWGPGAAK SGVGTALLLK LAQMFSDMVL KDGFQPSRSI IFASWSAGDF GSVGATEWLE GYLSSLHLKA FTYINLDKAV LGTSNFKVSA SPLLYTLIEK TMQNVKHPVT GQFLYQDSNW ASKVEKLTLD NAAFPFLAYS GIPAVSFCFC EDTDYPYLGT TMDTYKELIE RIPELNKVAR AAAEVAGQFV IKLTHDVELN LDYERYNSQL LSFVRDLNQY RADIKEMGLS LQWLYSARGD FFRATSRLTT DFGNAEKTDR FVMKKLNDRV MRVEYHFLSP YVSPKESPFR HVFWGSGSHT LPALLENLKL RKQNNGAFNE TLFRNQLALA TWTIQGAANA LSGDVWDIDN EF
Host	HEK293 Cells
Form/Format	Lyophilized from a 0.22 um filtered solution of PBS, pH 7.4.
Purity/Purification	>97% by SDS-PAGE.
Preparation and Storage	Store the lyophilized protein at -20 degree C to -80 degree C for long term. After reconstitution, the protein solution is stable at -20 degree C for 3 months, at 2-8 degree C for up to 1 week.
OMIM	190010
3D Structure	ModBase 3D Structure for P02786
Active Protein Note	Protein activity can be an ambiguous term. Please refer to the data sheet or inquire with Technical Support to determine the definition of activity for this product.
Species	Human
Endotoxin	< 0.1 EU/ug of the protein by LAL method.
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized human TfR Protein at 10 ug/ml (100 ul/well) can bind human Transferrin. The EC50 of human Transferrin is 5.6 ng/mL.
Reconstitution	Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water.
Tag	6xHis tag at the C-terminus
Product Categories/Family for sTfR active protein	CD Antigen
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for sTfR active protein	Description: Recombinant Human sTfR Protein is produced by HEK293 expression system. The target protein is expressed with sequence (Cys89-Phe760) of human sTfR (Accession #NP_001121620.1) fused with a 6xHis tag at the C-terminus. Background: This protein is a cell surface receptor necessary for cellular iron uptake by the process of receptor-mediated endocytosis. This receptor is required for erythropoiesis and neurologic development. Multiple alternatively spliced variants have been identified.

Other Notes	Small volumes of sTfR active protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for sTfR purchase	MBS9139684 is an active protein targeting sTfR. Also known as Recombinant Human sTfR Protein. Host: HEK293 Cells.



SDS-Page of sTfR active protein
Recombinant Human sTfR Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at approximately 85 kDa.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for sTfR. It may not necessarily be applicable to this product.

NCBI GI #	189458819
NCBI GeneID	7037
NCBI Accession #	NP_001121620.1
UniProt Primary Accession #	P02786
UniProt Related Accession #	P02786
GenBank Nucleotide #	NP_001121620.1
NCBI Official Full Name	transferrin receptor protein 1 isoform 1
NCBI Official Synonym Full Names	transferrin receptor
NCBI Official Symbol	TFRC
NCBI Official Synonym Symbols	T9; TR; TFR; p90; CD71; TFR1; TRFR; IMD46
UniProt Protein Name	Transferrin receptor protein 1
UniProt Synonym Protein Names	T9; p90
Protein Family	Prophage side tail fiber protein
UniProt Gene Name	TFRC
UniProt Synonym Gene Names	TR; TfR; TfR1; Trfr; sTfR
UniProt Entry Name	TFR1_HUMAN
NCBI Protein Information	transferrin receptor protein 1
NCBI Summary for sTfR	This gene encodes a cell surface receptor necessary for cellular iron uptake by the process of receptor-mediated endocytosis. This receptor is required for erythropoiesis and neurologic development. Multiple alternatively spliced variants have been identified. [provided by RefSeq, Sep 2015]

UniProt Comments for sTfR	TfR: the transferrin receptor. Regulates the cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied receptors into specialized endosomes. Endosomal acidification leads to iron release. The apotransferrin-receptor complex is then recycled to the cell surface with a return to neutral pH and the concomitant loss of affinity of apotransferrin for its receptor. Transferrin receptor is necessary for development of erythrocytes and the nervous system. Protein type: Membrane protein, integral; Receptor, misc.; Cell surface Chromosomal Location of Human Ortholog: 3q29 Cellular Component: extracellular space; cell surface; intracellular membrane-bound organelle; integral to plasma membrane; cytoplasmic membrane-bound vesicle; extracellular region; coated pit; recycling endosome; membrane; perinuclear region of cytoplasm; melanosome; plasma membrane; vesicle; endosome; external side of plasma membrane Molecular Function: identical protein binding; protein binding; transferrin receptor activity; double-stranded RNA binding Biological Process: receptor-mediated endocytosis; viral reproduction; cellular iron ion homeostasis; positive regulation of bone resorption; transferrin transport; osteoclast differentiation; regulation of cell growth; transmembrane transport; regulation of cell proliferation
Research Articles on sTfR	**1.** TfR1 expression (and VEGF) expression was correlated to shorter overall survival in osteosarcoma patients.
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