OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TP726965

Tfrc Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant Mouse Transferrin Receptor Protein 1/TfR (N-8His)
Species:	Mouse
Expression cDNA Clone or AA Sequence:	Cys89-Phe763
Tag:	N-His
Buffer:	Lyophilized from a 0.2 um filtered solution of PBS, pH7.4.
Note:	Recombinant Mouse Transferrin Receptor Protein 1 is produced by our Mammalian expression system and the target gene encoding Cys89-Phe763 is expressed with a 8His tag at the N-terminus.
Storage:	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Stability:	12 months from date of despatch
Locus ID:	22042
UniProt ID:	Q62351
Synonyms:	Transferrin receptor protein 1; TR; TfR; TfR1; Trfr; CD71; Tfrc
Summary:	Transferrin receptor protein 1 (TFRC) belongs to the peptidase M28 family that is synthesized as a 172 amino acid (aa). TFRC regulated by cellular iron levels through binding of the iron regulatory proteins, IRP1 and IRP2, to iron-responsive elements in the 3'-UTR. It binds one transferrin or HFE molecule per subunit and binds the HLA class II histocompatibility antigen, DR1. It Interacts with SH3BP3 and STEAP3, facilitates TFRC endocytosis in erythroid precursor cells. Cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied transferrin receptor 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. A second ligand, the heditary hemochromatosis protein HFE, competes for binding with transferrin for an overlapping C-terminal binding site. It positively regulates T and B cell proliferation through iron uptake.

View online »