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 BM745

Transferrin (TF) (N-term) Mouse Monoclonal Antibody [Clone ID: HTF-14]

Product data:

Product Type:	Primary Antibodies
Clone Name:	HTF-14
Applications:	ELISA, FN, IF, WB
Recommended Dilution:	**ELISA.** **Western Blot.** **Immunofluorescence.** **Functional Application.**
Reactivity:	Human, Porcine, Rabbit, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Purified Porcine Transferrin.
Specificity:	This antibody is specific for the N-terminal domain of Transferrin and is known to block the binding of this antibody to Transferrin. *HTF-14* recognises a band of approximately 77kDa under*reducing conditions* in Human plasma. Clone *HTF-14* is not able to recognize receptor bound Transferrin. Clone HTF-14 recognizes a conformational epitope in a loop of the N lobe of Transferrin involving the critical Lys-144 residue, also essential for binding of the N lobe to the transferrin receptor (*Mason et al.*2009) Transferrin is a 77 kDa plasma protein synthesized by the liver involved with the transport of iron. Each transferrin molecule has two domains, both with facility to carry 2 ferric ions. The iron/transferrin complex is essential for haemoglobin synthesis and certain types of cell division. **Negative Species.** Bovine, Sheep, Canine (Dog) and Equine (Horse).
Formulation:	PBS State: Aff - Purified State: Liquid purified IgG fraction Preservative: 0.09% Sodium Azide
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein A

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Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	transferrin
Database Link:	Entrez Gene 7018 Human P02787
Background:	Transferrin is a monomeric glycoprotein of approximately 77 kDa, which serves as an iron-transporter. In normal plasma, transferrin has a concentration of 25-50 mmol / liter, and is usually about one-third saturated with iron, thus providing a large buffering capacity in case of an acute increase in plasma iron levels. Cells take up transferrin-iron complexes (holotransferrin) using transferrin receptor dimers. Upon binding of holotransferrin, the receptor is internalized by clathrin-mediated endocytosis. Acidification of endosomes by vesicular membrane proton pumps leads to dissociation of iron ions, whereas transferrin (apotransferrin) remains associated with its receptor (CD71) and recycles to the cell surface, where apotransferrin is released upon exposure to normal pH. Internalization of labeled transferrin thus represents an usefull approach to study endocytosis. Serum concentration rises in iron deficiency and pregnancy and falls in iron overload, infection and inflammatory conditions. Iron/transferrin complex is essential in haemoglobin synthesis and for certain types of cell division.
Synonyms:	Serotransferrin, Siderophilin