

## Product datasheet for **BM745AF**

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

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	HTF-14
Applications:	ELISA, FN, IF, IHC, R, WB
Recommended Dilution:	<b>Western blot:</b> non-reducing conditions. <b>Immunohistochemistry on paraffin sections:</b> 10 µg/ml. <i>Positive control:</i> placenta. <b>Immunocytochemistry.</b> <b>ELISA.</b> <b>RIA.</b> <b>Functional application:</b> blocks binding of transferrin to the receptor.
Reactivity:	Human, Porcine, Rabbit
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Purified porcine transferrin
Specificity:	This antibody recognizes an epitope located in the N-terminal domain of human serum transferrin, a 77 kDa single polypeptide chain glycoprotein (member of the iron binding family of proteins). It is synthesised in the liver and consists of two domains each having a high affinity reversible binding site for Fe <sup>3+</sup> .
Formulation:	Phosphate buffered saline (PBS), approx. pH 7.4; 0.2 µm filter sterilized State: Azide Free State: Liquid purified Ig fraction
Concentration:	lot specific
Purification:	Purified by protein-A affinity chromatography.
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C. <b>DO NOT FREEZE!</b>
Stability:	Shelf life: one year from despatch.



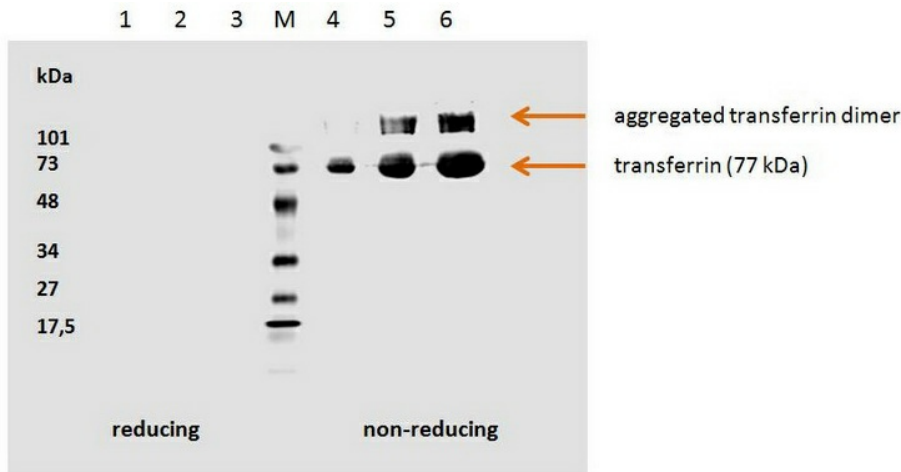
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**Database Link:** [P09571](#)

**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  $\mu\text{mol}$  / 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 a useful 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

**Product images:**



Human transferrin detected by the mouse monoclonal antibody HTF-14.