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antibody and ELISA experts

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Anti-Transferrin Purified Azide Free TF Monoclonal Antibody

Catalog Number: M00094-1

About TF

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 µmol / 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.

Overview

Product Name	Anti-Transferrin Purified Azide Free TF Monoclonal Antibody
Reactive Species	Human, Pig, Rabbit
Description	Boster Bio Anti-Transferrin Purified Azide Free TF Monoclonal Antibody (Catalog# M00094-1). Tested in WB, IHC-P, ICC, ELISA, RIA, Functional Assay application(s). This antibody reacts with Human, Pig, Rabbit.
Application	ELISA, IHC-P, ICC, WB, Functional Assay, RIA
Clonality	Monoclonal HTF-14
Formulation	Phosphate buffered saline (PBS), pH 7.4, azide-free
Storage Instructions	Store at 2-8°C. Do not freeze.
Host	Mouse
Uniprot ID	P02787

Technical Details

Immunogen	Purified porcine transferrin. The antibody HTF-14 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 Fe3+.
Predicted Reactive Species	Primate
Isotype	Mouse IgG1
Form	Liquid

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Concentration	1 mg/ml
Purification	Purified by protein-A affinity chromatography.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Functional application: The antibody HTF-14 blocks binding of transferrin to its receptor. Immunohistochemistry (paraffin sections): 10 ug/ml; positive tissue: placenta. Western blotting: non-reducing conditions, recommended dilution: 1-2 ug/ml.

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Anti-Transferrin Purified Azide Free TF Monoclonal Antibody (M00094-1) Images

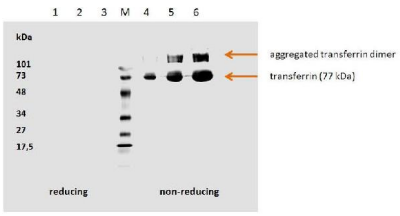

Figure 1. Western blotting validation for Anti-Transferrin Purified Azide Free TF Monoclonal Antibody M00094-1

Human transferrin detected by the mouse monoclonal antibody HTF-14.
1. hTransferrin; 5 µg/well (red. con.)
2. hTransferrin; 3 µg/well (red. con.)
3. hTransferrin; 1 µg/well (red. con.)
M Low Range marker (Bio-Rad)
4. hTransferrin; 1 µg/well (non-red. con.)
5. hTransferrin; 3 µg/well (non-red. con.)
6. hTransferrin; 5 µg/well (non-red. con.)
Electrophoresis was performed on a SDS-PAGE gel. To determine SDS-PAGE gel concentration

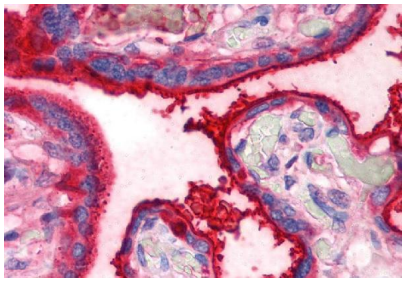

Figure 2. Immunohistochemistry validation of TF using Anti-Transferrin Purified Azide Free TF Monoclonal Antibody (M00094-1).

Immunohistochemistry staining of human placenta (paraffin sections) using anti-transferrin (HTF-14).
Commercially tested by LifeSpan BioSciences.
For more protocol information of IHC

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