Datasheet for ABIN2749040

anti-Transferrin antibody

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Overview

Quantity:	0.1 mg
Target:	Transferrin (TF)
Reactivity:	Human, Pig, Rabbit
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Transferrin antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunocytochemistry (ICC), Radioimmunoassay (RIA), Functional Studies (Func)

Product Details

Immunogen:	Purified porcine transferrin.
Clone:	HTF-14
Isotype:	IgG1
Specificity:	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+.
No Cross-Reactivity:	Cow, Dog, Horse, Sheep
Cross-Reactivity (Details):	Human, Rabbit, Porcine
Purification:	Purified by protein-A affinity chromatography.

Product Details

Purity:	> 95 % (by SDS-PAGE)
Endotoxin Level:	Endotoxin level is less than 0.01 EU/μg of the protein, as determined by the LAL test.

Target Details

Target:	Transferrin (TF)
Alternative Name:	Transferrin (TF Products)
Background:	Transferrin,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.,TFQTL1, PRO1557, PRO2086
Gene ID:	7018
UniProt:	P02787
Pathways:	Transition Metal Ion Homeostasis

Application Details

Application Notes:	Functional application: The antibody HTF-14 blocks binding of transferrin to its receptor. Immunohistochemistry (paraffin sections): Recommended dilution: 10 μg/mL, positive tissue: placenta. Western blotting: non-reducing conditions, recommended dilution: 1-2 μg/mL.
Restrictions:	For Research Use only

Handling

Concentration:	1 mg/mL

Handling

Buffer:	Phosphate buffered saline (PBS), pH 7.4
Preservative:	Azide free
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

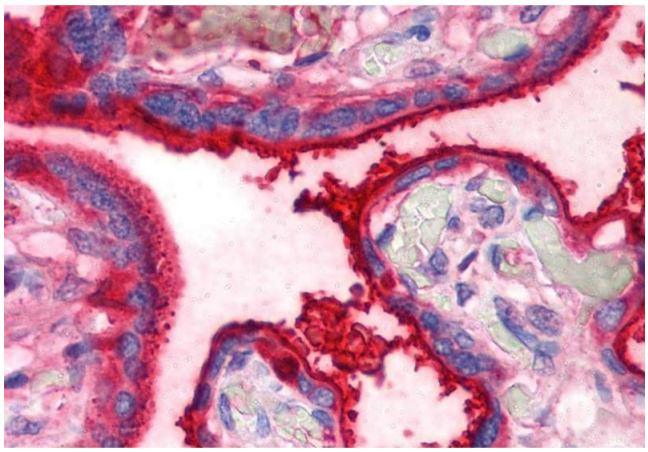
Product cited in:

Nováková, Dráberová, Schürmann, Czihak, Viklický, Dr-aber: "gamma-Tubulin redistribution in taxol-treated mitotic cells probed by monoclonal antibodies." in: **Cell motility and the cytoskeleton**, Vol. 33, Issue 1, pp. 38-51, (1996) (PubMed).

Bártek, Viklický, Stratil: "Phylogenetically more conservative epitopes among monoclonal antibody-defined antigenic sites of human transferrin are involved in receptor binding." in: **British journal of haematology**, Vol. 59, Issue 3, pp. 435-41, (1985) (PubMed).

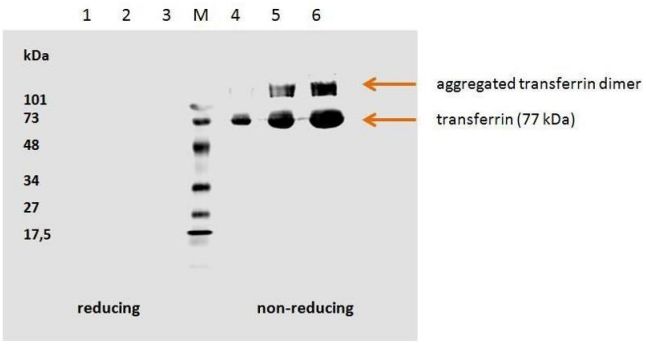
Bártek, Viklický, Fran?k, Angelisová, Dráber, Jarosíková, N?mec, Verlová: "Monoclonal antibodies against transferrin. Precipitating mixtures and lack of inter-species cross-reactivity." in: **Immunology letters**, Vol. 4, Issue 5, pp. 231-5, (1982) (PubMed).

Images



Immunohistochemistry (Paraffin-embedded Sections)

Image 1. Immunohistochemistry staining of human placenta (paraffin sections) using anti-transferrin (HTF-14).



Western Blotting

Image 2. 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.)