

Apotransferrin Antibody
Rabbit Polyclonal Antibody
Catalog # ABV11484**Specification**

Apotransferrin Antibody - Product Information

Application	WB
Primary Accession	P02786
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	84871

Apotransferrin Antibody - Additional Information**Gene ID** 7037

Positive Control	Western blot: Human serum, Mouse muscle lysate, Rat kidney lysate, Human Apotransferrin
Application & Usage	Western blot: 1-4 µg

Other Names
Siderophilin, TRF**Target/Specificity**
Apotransferrin**Antibody Form**
Liquid**Appearance**
Colorless liquid**Formulation**
100 µg (0.5 mg/ml) of antibody in PBS pH 7.2, 0.01 % BSA, 0.03 % ProClin®, and 50 % glycerol.**Handling**
The antibody solution should be gently mixed before use.**Reconstitution & Storage**
-20°C**Background Descriptions****Precautions**
Apotransferrin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Apotransferrin Antibody - Protein Information

Name TFRC

Function

Cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied transferrin receptor into specialized endosomes (PubMed:26214738). 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 (By similarity). A second ligand, the hereditary hemochromatosis protein HFE, competes for binding with transferrin for an overlapping C-terminal binding site. Positively regulates T and B cell proliferation through iron uptake (PubMed:26642240). Acts as a lipid sensor that regulates mitochondrial fusion by regulating activation of the JNK pathway (PubMed:26214738). When dietary levels of stearate (C18:0) are low, promotes activation of the JNK pathway, resulting in HUWE1-mediated ubiquitination and subsequent degradation of the mitofusin MFN2 and inhibition of mitochondrial fusion (PubMed:26214738). When dietary levels of stearate (C18:0) are high, TFRC stearylolation inhibits activation of the JNK pathway and thus degradation of the mitofusin MFN2 (PubMed:26214738).

Cellular Location

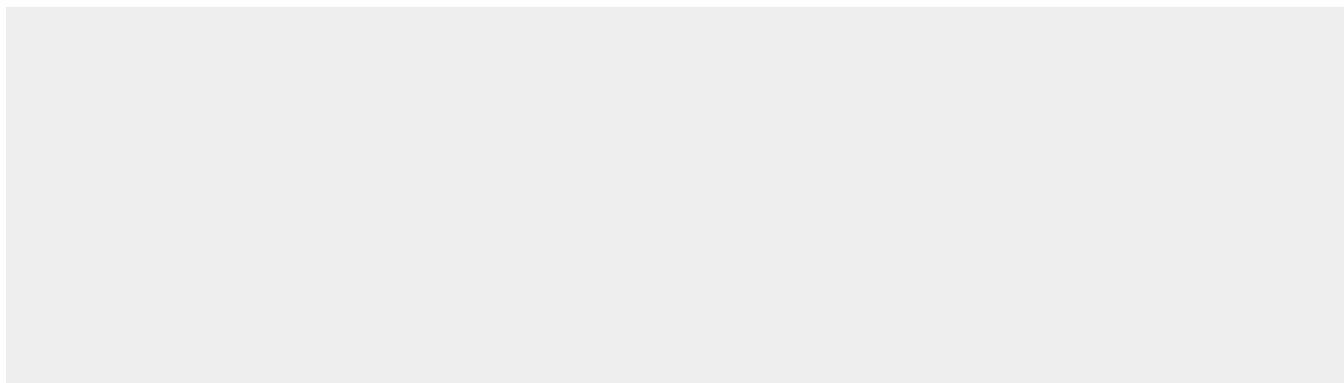
Cell membrane; Single-pass type II membrane protein Melanosome. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV

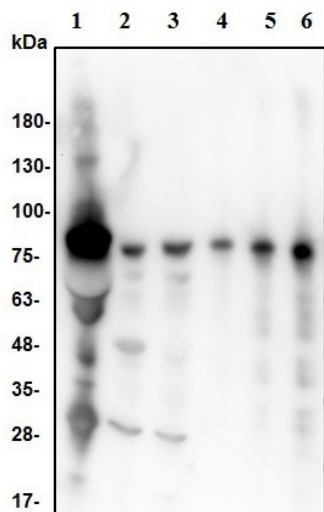
Apotransferrin Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Apotransferrin Antibody - Images





Western blot with Apotransferrin antibody: Lane 1: 20 µg Human serum; Lane 2: 22 µg Mouse muscle lysate. Lane 3: 60 µg Rat kidney lysate. Lane 4: 2 ng Human Apotransferrin; Lane 5: 10 ng Human Apotransferrin; Lane 6: 50 ng Human Apotransferrin;

Apotransferrin Antibody - Background

Apotransferrin is the ion-free form of Transferrin. Like transferrin, apotransferrin has a physiological role in the transportation and distribution of iron among the body organs. It is also an important transport factor used in defined culture media.