

**Transferrin receptor 1 Antibody (N-Term)**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF3935a****Specification**

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**Transferrin receptor 1 Antibody (N-Term) - Product Information**

|                   |  |
|-------------------|--|
| Application       | WB, E  |
| Primary Accession | <a href="#">P02786</a>   |
| Other Accession   | <a href="#">NP_003225.2</a> , <a href="#">7037</a> , <a href="#">22042 (mouse)</a> , <a href="#">64678 (rat)</a> |
| Reactivity        | Human  |
| Predicted         | Mouse, Rat, Pig, Dog   |
| Host              | Goat   |
| Clonality         | Polyclonal   |
| Concentration     | 0.5 mg/ml  |
| Isotype           | IgG  |
| Calculated MW     | 84871  |

**Transferrin receptor 1 Antibody (N-Term) - Additional Information****Gene ID** 7037**Other Names**

Transferrin receptor protein 1, TR, TfR, TfR1, Trfr, T9, p90, CD71, Transferrin receptor protein 1, serum form, sTfR, TFRC

**Dilution**

WB~~1:1000

E~~N/A

**Format**

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Transferrin receptor 1 Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

**Transferrin receptor 1 Antibody (N-Term) - Protein Information****Name** TFRC**Function**

Cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied transferrin

receptor into specialized endosomes (PubMed:<a href="http://www.uniprot.org/citations/26214738" target="\_blank">26214738</a>). 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:<a href="http://www.uniprot.org/citations/26642240" target="\_blank">26642240</a>). Acts as a lipid sensor that regulates mitochondrial fusion by regulating activation of the JNK pathway (PubMed:<a href="http://www.uniprot.org/citations/26214738" target="\_blank">26214738</a>). 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:<a href="http://www.uniprot.org/citations/26214738" target="\_blank">26214738</a>). When dietary levels of stearate (C18:0) are high, TFRC stearylation inhibits activation of the JNK pathway and thus degradation of the mitofusin MFN2 (PubMed:<a href="http://www.uniprot.org/citations/26214738" target="\_blank">26214738</a>). Mediates uptake of NICOL1 into fibroblasts where it may regulate extracellular matrix production (By similarity).

#### **Cellular Location**

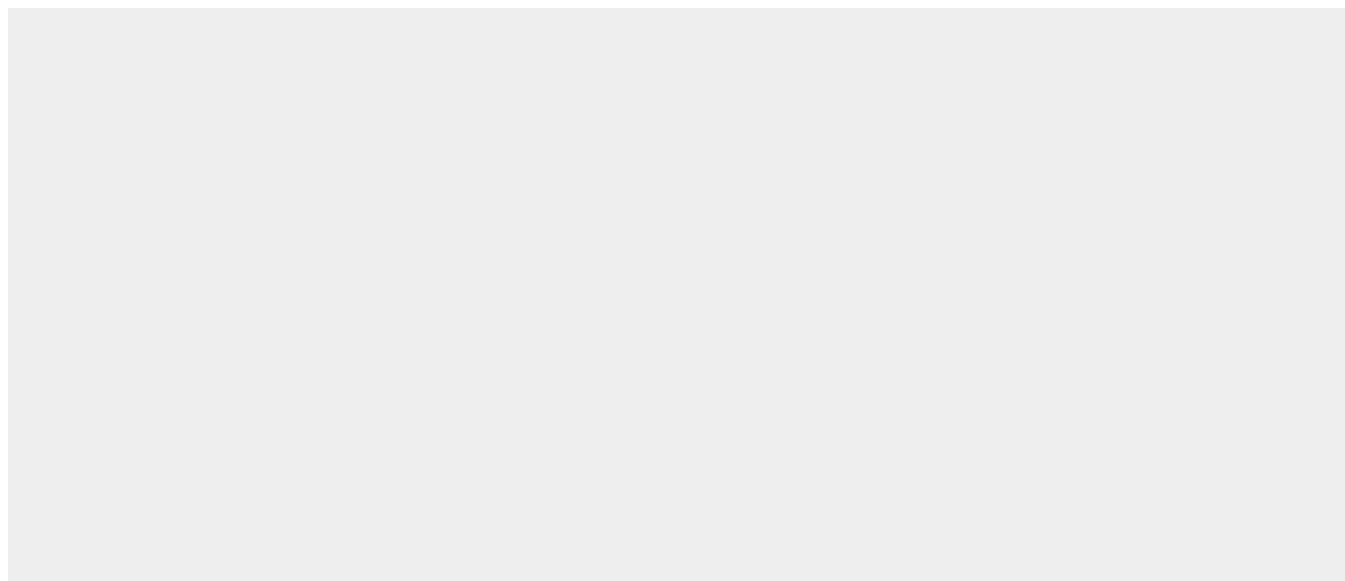
Cell membrane; Single-pass type II membrane protein Melanosome. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV

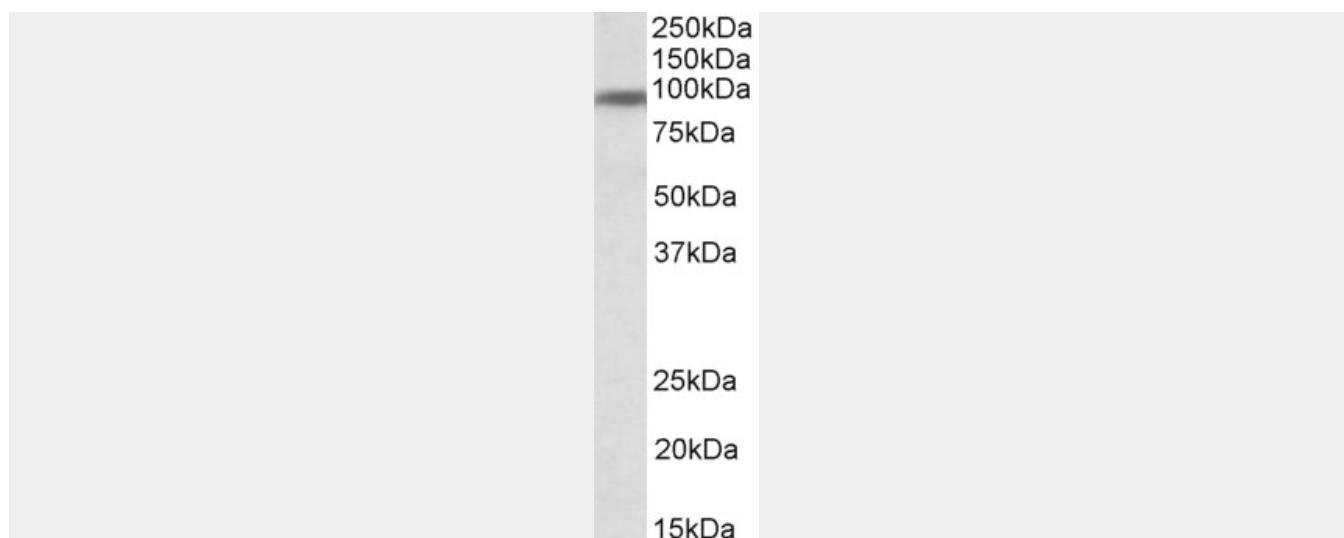
#### **Transferrin receptor 1 Antibody (N-Term) - Protocols**

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](#)

#### **Transferrin receptor 1 Antibody (N-Term) - Images**





AF3935a (1  $\mu$ g/ml) staining of Human Breast lysate (35  $\mu$ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

#### **Transferrin receptor 1 Antibody (N-Term) - Background**

Reported variants represent identical protein: NP\_003225.2, NP\_001121620.1.

#### **Transferrin receptor 1 Antibody (N-Term) - References**

Src regulates Tyr(20) phosphorylation of transferrin receptor-1 and potentiates breast cancer cell survival. Jian J, Yang Q, Huang X. J Biol Chem. 2011 Oct 14;286(41):35708-15. PMID: 21859709