

**Anti-CD71 / Transferrin Receptor Antibody (clone 1E6)**  
**Mouse Anti Human Monoclonal Antibody**  
**Catalog # ALS17689**

**Specification**

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**Anti-CD71 / Transferrin Receptor Antibody (clone 1E6) - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | <b>WB, IHC-P, E</b>    |
| Primary Accession | <a href="#">P02786</a> |
| Predicted         | <b>Human</b>           |
| Host              | <b>Mouse</b>           |
| Clonality         | <b>Monoclonal</b>      |
| Isotype           | <b>IgG2b,k</b>         |
| Calculated MW     | <b>84871</b>           |

**Anti-CD71 / Transferrin Receptor Antibody (clone 1E6) - Additional Information**

**Gene ID** 7037

**Alias Symbol** **TFRC**

**Other Names**

TFRC, CD71, TFR1, TRFR, TFR, TR, CD71 antigen, p90, T9, Transferrin receptor, Transferrin receptor protein 1

**Target/Specificity**

Human Transferrin Receptor

**Reconstitution & Storage**

Protein A purified

**Precautions**

Anti-CD71 / Transferrin Receptor Antibody (clone 1E6) is for research use only and not for use in diagnostic or therapeutic procedures.

**Anti-CD71 / Transferrin Receptor Antibody (clone 1E6) - Protein Information**

**Name** TFRC

**Function**

Cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied transferrin receptor into specialized endosomes (PubMed:[26214738](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/26642240)). 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>).

**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

**Anti-CD71 / Transferrin Receptor Antibody (clone 1E6) - 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](#)

**Anti-CD71 / Transferrin Receptor Antibody (clone 1E6) - Images**