**abcepta**

## CD71 / Transferrin Receptor Antibody (aa31-47)
**Rabbit Polyclonal Antibody**
**Catalog # ALS11604**

### Specification

### CD71 / Transferrin Receptor Antibody (aa31-47) - Product Information

| | |
|---|---|
| Application | **IHC** |
| Primary Accession | P02786 |
| Reactivity | **Human** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Calculated MW | **85kDa KDa** |

### CD71 / Transferrin Receptor Antibody (aa31-47) - 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

**Target/Specificity**
Amino acids 31 to 47 of human TFRC

**Reconstitution & Storage**
Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

**Precautions**
CD71 / Transferrin Receptor Antibody (aa31-47) is for research use only and not for use in diagnostic or therapeutic procedures.

### CD71 / Transferrin Receptor Antibody (aa31-47) - 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 heditary 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 stearoylation 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

## CD71 / Transferrin Receptor Antibody (aa31-47) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## CD71 / Transferrin Receptor Antibody (aa31-47) - Images
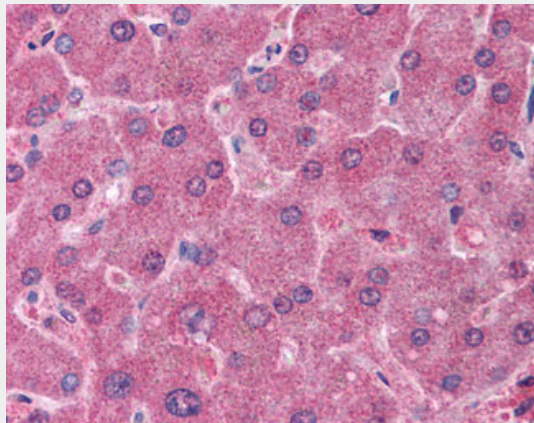


Anti-Transferrin Receptor antibody IHC of human liver.

## CD71 / Transferrin Receptor Antibody (aa31-47) - Background

Cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied transferrin receptor into specialized endosomes. 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 heditary hemochromatosis protein HFE, competes for binding with transferrin for an overlapping C-terminal binding site.

## CD71 / Transferrin Receptor Antibody (aa31-47) - References

Schneider C.,et al.Nature 311:675-678(1984).

McClelland A.,et al.Cell 39:267-274(1984).
Evans P.,et al.Gene 199:123-131(1997).
Wheeler D.L.,et al.Thesis (1999), University of Iowa, United States.
Totoki Y.,et al.Submitted (MAR-2005) to the EMBL/GenBank/DDBJ databases.