SUITE 203, 17 Ramsey Road, Shirley, NY 11967, USA
Tel: 1-631-416-1478 Fax: 1-631-207-8356
Email: info@creative-biolabs.com
www.creative-biolabs.com

# Product Information

## Anti-Human Transferrin Protein A scaffold

Cat. No.: **AFB-39LY**
This product is for research use only and is not intended for diagnostic use.

### Product Overview

The Anti-Transferrin Protein A Scaffold molecule was selected against human transferrin. Cross reactivity with other species has not been tested. The Anti-Transferrin Protein A Scaffold molecule is an ideal capture molecule for ELISA assays and works very well for purification and depletion of transferrin from plasma. The Anti- Transferrin Protein A Scaffold molecule is modified with a unique C-terminal cysteine for directed singlepoint chemical modification, facilitating coupling to matrices.

### Antigen Description

Transferrin is a single polypeptide chain glycoprotein with a molecular weight of 79.5 kDa. Transferrin (serotransferrin) circulates in the plasma, binds iron from donor cells and delivers it via the plasma to specific receptors on donor cells. The number of transferrin receptors varies according to the cells need for iron. The requirements for iron in the erythroid marrow and placenta are hundredfold greater than in other organs and transferrin is the only system available to meet this need. Transferrin is synthesized in the liver and consists of two domains each having a high affinity binding site for Fe3+. Transferrin is present in lymph and cerebrospinal fluid as well as in plasma. The plasma concentration range between 1.8-2.7 mg/ml but the concentration falls during iron overload and rises in iron deficiency states such as protein malnutrition, hemolysis and inflammation of various causes.

### Specific Activity

Anti-Transferrin Protein A scaffold molecule binds to human transferrin. Cross reactivity with other species has not been tested.

### Source

Display library

### Species Reactivity

human

### Expression Host

E. coli

### Applications

Suitable as capture reagent in ELISA and in Affinity Chromatography.

### Molecular Weight

14.1 kDa

### Storage

At +4°C is recommended for lyophilized protein. For reconstituted protein in physiological buffer, short-term storage at +4°C is recommended. For long-term storage, the protein solution should be aliquoted and then stored at -20°C. There is no decrease in

## ANTIGEN GENE INFOMATION

### Gene Name

TF transferrin [ Homo sapiens ]

**Official Symbol**

TF

**Synonyms**

TF; transferrin; serotransferrin; PRO1557; PRO2086; Apotransferrin; Beta 1 metal binding globulin; Beta-1 metal-binding globulin; DKFZp781D0156; PRO1400; PRO1557; PRO2086; Serotransferrin; Serotransferrin precursor; Siderophilin; TF; Transferin; Transferrin; TRFE_HUMAN; siderophilin; OTTHUMP00000197155; beta-1 metal-binding globulin; TFQTL1

**Gene ID**

7018

**mRNA Refseq**

NM_001063

**Protein Refseq**

NP_001054

**MIM**

190000

**UniProt ID**

P02787

**Chromosome Location**

3q21

**Pathway**

EPHB forward signaling, organism-specific biosystem; HIF-1-alpha transcription factor network, organism-specific biosystem; Hemostasis, organism-specific biosystem; Iron uptake and transport, organism-specific biosystem; Mineral absorption, organism-specific biosystem; Mineral absorption, conserved biosystem; Platelet activation, signaling and aggregation, organism-specific biosystem; Platelet degranulation, organism-specific biosystem; Response to elevated platelet cytosolic Ca2+, organism-specific biosystem; Transferrin endocytosis and recycling, organism-specific biosystem; Transmembrane transport of small molecules, organism-specific biosystem.

**Function**

Transferrins are iron binding transport proteins which can bind two Fe(3+) ions in association with the binding of an anion, usually bicarbonate. It is responsible for the transport of iron from sites of absorption and heme degradation to those of storage and utilization. Serum transferrin may also have a further role in stimulating cell proliferation.

SUITE 203, 17 Ramsey Road, Shirley, NY 11967, USA
Tel: 1-631-416-1478 Fax: 1-631-207-8356
Email: info@creative-biolabs.com