



**sTfR Human,  
Mouse Monoclonal Antibody, Clone: TFR-01**

**Product Data Sheet**

**Source of Antigen:** Human placenta

**Host:** Mouse

**Isotype:** IgG1

**Other names:** TfR

**Cat. No.:**

RD182011110-01 (0.1 mg)

**Research topic**

Iron metabolism

**Preparation**

The antibody is a mouse monoclonal antibody against Human sTfR.

**Species Reactivity**

Human

Not yet tested in other species.

**Purification Method**

Affinity chromatography on a column with immobilized protein G.

**Antibody Content**

0.1 mg (determined by BCA method, BSA was used as a standard)

**Formulation**

The antibody is lyophilized in 0.05 M phosphate buffer, 0.1 M NaCl, pH 7.2. **AZIDE FREE.**

**Reconstitution**

Add 0.1 ml of deionized water and let the lyophilized pellet dissolve completely. Slight turbidity may occur after reconstitution, which does not affect activity of the antibody. In this case clarify the solution by centrifugation.

**Shipping**

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

**Storage/Stability**

The lyophilized antibody remains stable and fully active until the expiry date when stored at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles and store frozen at -80°C. Reconstituted antibody can be stored at 4°C for a limited period of time; it does not show decline in activity after one week at 4°C.

**Expiration**

See vial label.

**Lot Number**

See vial label.

**Quality Control Test**

Indirect ELISA - to determine titer of the antibody

SDS PAGE - to determine purity of the antibody

**Applications**

ELISA, Western blotting

**Introduction to the Molecule**

The transferrin receptor (TfR) is the gateway for transferrin-bound-iron entering all body cells. TfR is abundant on the surface

of many newly formed cells, but the erythroid marrow cells account for 70 to 80 % of the total body TfR content. The soluble (or serum) transferrin receptor (sTfR) is a circulating truncated form of the membrane receptor protein; it is an 85 kDa glycoprotein forming in serum a 320 kDa complex with diferric transferrin. The serum sTfR concentration reflects the total body mass of cellular transferrin receptor. Anaemias associated with enhanced erythropoiesis and iron deficiency result in an elevation in the sTfR values. Elevation of the soluble transferrin receptor may be also caused by haemolytic anaemia, polycythaemia and thalassemia while aplastic anaemia and chronic renal failure may result in its decrease. The most important clinical use of the sTfR determination is in the differential diagnosis between iron deficiency anaemia and the anaemia of chronic disease.

**Note**

This product is for research use only.

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