

Recombinant soluble transferrin receptor Reference standard

Cat. No. TFRC-179H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

The transferrin receptor reference standard is intended to be used to standardise immunoassays for the measurement of serum transferrin receptor (sTfR). Cellular uptake of iron bound to its carrier protein transferrin (Tf) is mediated by the transferrin receptor (TfR). A truncated, soluble form of the receptor is present in serum (sTfR), formed as a result of protease action. The sTfR circulates as a complex with transferrin which is present at approximately 250 times the concentration of the sTfR in molar terms. TfR density is upregulated when there is increased erythropoiesis and in iron deficiency. As the sTfR concentration correlates with the total TfR content, a raised sTfR concentration is therefore a marker of iron deficiency.

Species

Human

Enzyme Unit

21.7 mg/L or 303 nmol/L (when reconstituted with 0.50 mL distilled or deionised water). These values apply to free rsTfR monomer.

Usage

No attempt should be made to weigh out any portion of the freeze-dried material prior to reconstitution. Reconstitute the ampoules contents with 0.50 mL distilled or deionised water. The reconstituted material should be used to standardise assays for the serum transferrin receptor (sTfR).

Notes

This preparation is not for administration to humans. The preparation contains material of human origin, and either the final product or the source materials, from which it is derived, have been tested and found negative for HBsAg, anti-HIV and HCV RNA. As with all materials of biological origin, this preparation should be

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regarded as potentially hazardous to health. It should be used and discarded according to your own laboratory's safety procedures. Such safety procedures should include the wearing of protective gloves and avoiding the generation of aerosols. Care should be exercised in opening ampoules or vials, to avoid cuts.

Stability

Reference materials are held at Creative Biomart within assured, temperature-controlled storage facilities. Reference Materials should be stored on receipt as indicated on the label.

Storage

Store unopened ampoules at -20 °C or below. Please note: because of the inherent stability of lyophilized material, Creative Biomart may ship these materials at ambient temperature.

GENE INFORMATION

Gene Name

TFRC transferrin receptor [Homo sapiens];

Official Symbol

TFRC

Synonyms

T9; TR; TFR; p90; CD71; TFR1; TRFR; transferrin receptor protein 1; transferrin receptor (p90, CD71)

Gene ID

7037

mRNA Refseq

NM_001128148

Protein Refseq

NP_001121620

MIM

190010

UniProt ID

P02786

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Chromosome Location	3q29
Pathway	Clathrin derived vesicle budding, organism-specific biosystem; FOXA2 and FOXA3 transcription factor networks, organism-specific biosystem; HIF-1-alpha transcription factor network, organism-specific biosystem
Function	double-stranded RNA binding; identical protein binding; protein binding

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