

Soluble transferrin receptor

General:

Iron transport in plasma is carried out by transferrin, which transfers iron to cells by binding to the transferrin receptor (TfR). Soluble TfR is a truncated monomer of the cell receptor. It circulates as a complex of transferrin and its receptor. Erythroblasts rather than reticulocytes are the main source of serum sTfR.

Measurements of sTfR are helpful in the investigation of the pathophysiology of anemia, in quantitatively evaluating the absolute rate of erythropoiesis and the adequacy of marrow proliferative capacity for any given degree of anemia, and in monitoring the erythropoietic response to various forms of therapy. The iron status also influences sTfR levels, which are considerably elevated in iron deficiency anemia but remain normal in inflammation associated anemia, and thus may be of considerable help in the differential diagnosis of anemia. This is particularly useful to identify iron deficiency in a patient with inflammation because ferritin values are normal or elevated in such cases.

Elevated serum levels are also the characteristic feature of functional iron deficiency, a situation defined by tissue iron deficiency despite adequate iron stores. The sTfR/ferritin ratio can thus define iron availability over a wide range of iron stores. With the exception of chronic lymphocytic leukemia (CLL) and high-grade non-Hodgkin's lymphoma and possibly hepatocellular carcinoma, sTfR levels are not increased in patients with malignancies.

Material: 1 ml serum

TAT: 7-10 days*

Method: nephelometric

Units: mg/l

Ref.- range: 0.76 - 1.76

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit <http://www.fml-dubai.com/parameter-listings/>