



Triiodothyronine (T3) [HRP] (DAG3034)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Triiodothyronine, HRP-Conjugated
Nature	Synthetic
Expression System	N/A
Species	N/A
Conjugate	HRP
Applications	immunoassay development or other applications.
Procedure	None
Format	Liquid
Concentration	1.0 mg/ml
Size	1 ml
Preservative	None
Storage	2-8°C short term, -20°C long term
Warnings	PLEASE note that this product is intended for research use only; not for diagnostic or clinical use.

BACKGROUND

Introduction	One of the most prevalent disorders of man is the dietary deficiency of iron and the resulting anemia. Therefore, the assays of iron, total iron binding capacity and other assessments of iron compounds in the body are clinically significant. Iron-storage compounds in the body include
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hemoglobin, hemosiderin, myoglobin and the cytochromes. In most tissues, ferritin is a major iron-storage protein. Human ferritin has a molecular weight of approximately 450,000 daltons, and consists of a protein shell around an iron core; each molecule of ferritin may contain as many as 4,000 iron atoms. Under normal conditions, this may represent 25% of the total iron found in the body. In addition, ferritin can be found in several isomers. High concentrations of ferritin are found in the cytoplasm of the reticuloendothelial system, the liver, spleen and bone marrow. Methods previously used to measure iron in such tissues are invasive, cause patient trauma and lack adequate sensitivity. The measurement of ferritin in serum is useful in determining changes in body iron storage, and is noninvasive with relatively little patient discomfort. Serum ferritin levels can be measured routinely and are particularly useful in the early detection of iron-deficiency anemia in apparently healthy people. Serum ferritin measurements are also clinically significant in the monitoring of the iron status of pregnant women, blood donors, and renal dialysis patients. High ferritin levels may indicate iron overload without apparent liver damage, as may be noted in the early stages of idiopathic hemochromatosis. Ferritin levels in serum have also been used to evaluate clinical conditions not related to iron storage, including inflammation, chronic liver disease, and malignancy. The Ferritin Enzyme Immunoassay Test Kit provides a rapid, sensitive and reliable assay. The antibodies developed for the test will determine a minimal concentration of human ferritin of 5 ng/ml. There is minimal cross-reactivity with human serum albumin, alpha-fetoprotein, human hemoglobin, human transferrin, and ferric chloride.
