

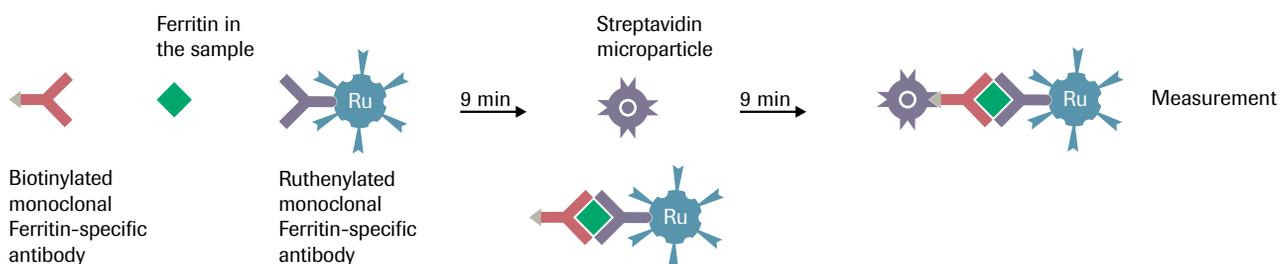
Elecsys[®] Ferritin

Electrochemiluminescence immunoassay (ECLIA) for the in vitro quantitative determination of ferritin in human serum or plasma

Indication

Ferritin is the iron storage protein. The ferritin detectable in human serum is in equilibrium with the body's depot iron and hence acts as an indicator for the level of iron stores. Determination of Ferritin can be used as an aid in iron metabolism diagnosis, monitoring iron therapy, ascertaining the iron reserves in groups at risk and in the differential diagnosis of anemias.

Test principle: Sandwich principle



1st incubation (9 minutes)

10 µL of sample, a biotinylated monoclonal ferritin-specific antibody, and a monoclonal ferritin-specific antibody labeled with a ruthenium complex form a sandwich complex.

2nd incubation (9 minutes)

After addition of streptavidin-coated microparticles, the complex becomes bound to the solid phase via interaction of biotin and streptavidin.

Measurement

The reaction mixture is aspirated into the measuring cell where the microparticles are magnetically captured onto the surface of the electrode. Unbound substances are then removed. Application of a voltage to the electrode then induces chemiluminescent emission which is measured by a photomultiplier.

Elecsys[®] technology

ECL (ElectroChemiLuminescence) is Roche's technology for immunoassay detection. Based on this technology and combined with well-designed, specific and sensitive immunoassays, Elecsys delivers reliable results. The development of ECL immunoassays is based on the use of a ruthenium-complex and tripropylamine (TPA). The chemiluminescence reaction for the detection of the reaction complex is initiated by applying a voltage to the sample solution resulting in a precisely controlled reaction. ECL technology can accommodate many immunoassay principles while providing superior performance.



Life needs answers

Elecsys® Ferritin test characteristics

Testing time	18 minutes
Test principle	Sandwich assay
Calibration	2 point
Traceability	Standardized against the Enzymun-Test Ferritin method, which has been standardized against the 1 st International Standard (IS) NIBSC (National Institute for Biological Standards and Control) "Reagent for Ferritin (human liver)" 80/602. Recent recovery studies show very good agreement with 2 nd IS 80/578 and 3 rd IS 94/572.
Sample material	Serum collected using standard sampling tubes. Li-, Na-heparin, K3-EDTA and sodium citrate plasma. When sodium citrate is used, the results must be corrected by + 10%.
Sample volume	10 µL
Detection limit	0.50 µg/L (ng/mL)
Measuring range	0.500 - 2'000 µg/L (ng/mL)
Intermediate imprecision	cobas e 411 analyzer: 2.1 – 7.7 % cobas e 601/ e 602 modules: 2.5 – 8.1 % Lowest conc. measured: 11.9 µg/L (ng/mL)
Expected values	Men, 20-60 years: 30 – 400 µg/L (ng/mL) Women, 17-60 years: 13 – 150 µg/L (ng/mL)

Order information

Elecsys Ferritin	100 tests per rackpack	04491785 190
Elecsys Ferritin	200 tests per rackpack	04491785 190
Ferritin CalSet	1 × 2 mL each of CalSet Calibrator 1 and 2	03737586 190
PreciControl Varia	2 × 3 mL each of PreciControl Varia 1 and 2	05618860 190

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