

Product datasheet

Rat Ferritin ELISA Kit ab157732

2 References 1 Image

Overview

Product name Rat Ferritin ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
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Overall < 10%

Inter-assay

Sample	n	Mean	SD	CV%
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Overall < 10%

Sample type Serum, Plasma, Other biological fluids

Assay type Sandwich (quantitative)

Sensitivity 2.7695 ng/ml

Range 12.5 ng/ml - 400 ng/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
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Serum > 85 % - %

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Rat

Product overview Abcam's Ferritin Rat ELISA Kit is a highly sensitive two-site enzyme linked immunoassay (ELISA) for the quantitative measurement of ferritin in rat biological samples.

In this assay the ferritin present in samples reacts with the anti-Ferritin antibodies which have been adsorbed to the surface of polystyrene microtitre wells. After the removal of unbound

proteins by washing, anti-Ferritin antibodies conjugated with horseradish peroxidase (HRP), are added. These enzyme-labeled antibodies form complexes with the previously bound Ferritin. Following another washing step, the enzyme bound to the immunosorbent is assayed by the addition of a chromogenic substrate, 3,3',5,5'-tetramethylbenzidine (TMB). The quantity of bound enzyme varies directly with the concentration of Ferritin in the sample tested; thus, the absorbance, at 450 nm, is a measure of the concentration of Ferritin in the test sample. The quantity of Ferritin in the test sample can be interpolated from the standard curve constructed from the standards, and corrected for sample dilution.

Platform Microplate

Properties

Storage instructions Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
100X HRP-conjugated anti-rat Ferritin antibody	1 x 150µl
20X Wash Buffer Concentrate	1 x 50ml
5X Diluent Concentrate	1 x 50ml
Chromogen Substrate Solution	1 x 12ml
Rat Ferritin Calibrator (Lyophilized)	1 vial
Rat Ferritin ELISA Microplate	1 unit
Stop Solution	1 x 12ml

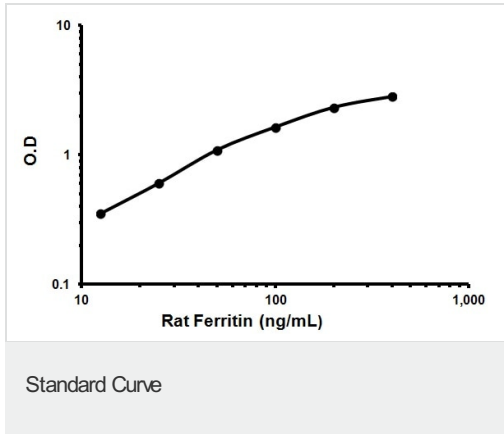
Function Stores iron in a soluble, non-toxic, readily available form. Important for iron homeostasis. Iron is taken up in the ferrous form and deposited as ferric hydroxides after oxidation. Also plays a role in delivery of iron to cells. Mediates iron uptake in capsule cells of the developing kidney.

Involvement in disease Defects in FTL are the cause of hereditary hyperferritinemia-cataract syndrome (HHCS) [MIM:600886]. It is an autosomal dominant disease characterized by early-onset bilateral cataract. Affected patients have elevated level of circulating ferritin. HHCS is caused by mutations in the iron responsive element (IRE) of the FTL gene.

Defects in FTL are the cause of neurodegeneration with brain iron accumulation type 3 (NBIA3) [MIM:606159]; also known as adult-onset basal ganglia disease. It is a movement disorder with heterogeneous presentations starting in the fourth to sixth decade. It is characterized by a variety of neurological signs including parkinsonism, ataxia, corticospinal signs, mild nonprogressive cognitive deficit and episodic psychosis. It is linked with decreased serum ferritin levels.

Sequence similarities Belongs to the ferritin family.
Contains 1 ferritin-like diiron domain.

Images



Representative standard curve using ab157732 Ferritin Rat ELISA Kit.

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