abcam

Product datasheet

Mouse Ferritin ELISA Kit (FTL) ab157713

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Overview

Precision

Product name Mouse Ferritin ELISA Kit (FTL)

Detection method Colorimetric

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Sample	n	Mean	SD	CV%	
Overall				< 10%	

Inter-assay

Intra-assav

Sample	n	Mean	SD	CV%
Overall				< 10%

Sample type Serum, Plasma, Other biological fluids

Assay type Sandwich (quantitative)

Sensitivity 3.1631 ng/ml

Range 12.5 ng/ml - 400 ng/ml

RecoverySample specific recovery

Sample type	Average %	Range
Serum	> 85	% - %

Assay duration Multiple steps standard assay

Species reactivity Reacts with: Mouse

Product overview Mouse Ferritin ELISA kit (FTL) is a highly sensitive ELISA designed for the quantitation of Ferritin

(FTL) in mouse 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 chromo¬genic 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-mouse Ferritin antibody	1 x 150µl
20X Wash Buffer Concentrate	1 x 50ml
5X Diluent Concentrate	1 x 50ml
Chromogen Substrate Solution	1 x 12ml
Mouse Ferritin Calibrator (lyophilized)	1 vial
Mouse 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.

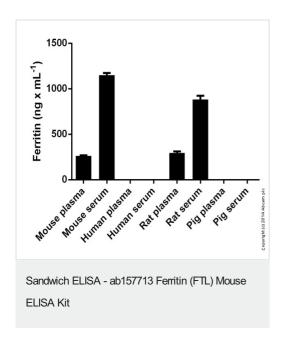
Defects in FTL are the cause of neurodegeneration with brain iron accumulation type 3 (NBIA3) [MIM:606159]; also known as adult-onset basal ganglia disease. It is a movement disorder with heterogeneous presentations starting in the fourth to sixth decade. It is characterized by a variety of neurological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

Sequence similarities

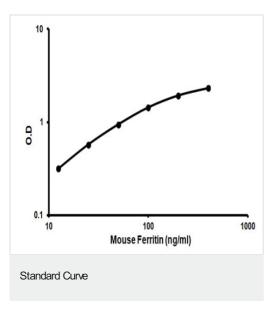
Belongs to the ferritin family.

Contains 1 ferritin-like diiron domain.

Images



Ferritin measured in biologicals showing quantity (ng) per mL of tested sample



Representative standard curve using ab157713 Ferritin Mouse ELISA kit

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