abcam

Product datasheet

# Anti-Ferritin Light Chain antibody [EPR5260] ab109373

KO VALIDATED Recombinant RabMAb

14 References 5 Images

## Overview

| | |
|---|---|
| **Product name** | Anti-Ferritin Light Chain antibody [EPR5260] |
| **Description** | Rabbit monoclonal [EPR5260] to Ferritin Light Chain |
| **Host species** | Rabbit |
| **Specificity** | This antibody recognizes the light chain of Ferritin only. |
| **Tested applications** | **Suitable for:** Flow Cyt (Intra), WB<br>**Unsuitable for:** ICC/IF or IHC-P |
| **Species reactivity** | **Reacts with:** Mouse, Human<br>**Predicted to work with:** Rat |
| **Immunogen** | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| **Positive control** | Human fetal liver, Hap1, HepG2 and HeLa cell lysates. Flow Cyt (intra): HeLa cells. |
| **General notes** | This product is a recombinant monoclonal antibody, which offers several advantages including:<br>- High batch-to-batch consistency and reproducibility<br>- Improved sensitivity and specificity<br>- Long-term security of supply<br>- Animal-free production<br>For more information **see here**.<br>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. |

## Properties

| | |
|---|---|
| **Form** | Liquid |
| **Storage instructions** | Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C. |
| **Storage buffer** | pH: 7.20<br>Preservative: 0.05% Sodium azide<br>Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant |
| **Purity** | Protein A purified |
| **Clonality** | Monoclonal |

**Clone number** EPR5260

**Isotype** IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab109373 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|---|---|---|
| **Flow Cyt (Intra)** | | 1/100 - 1/500.<br>**ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. |
| **WB** | | 1/10000 - 1/50000. Detects a band of approximately 19 kDa (predicted molecular weight: 20 kDa). |

**Application notes** Is unsuitable for ICC/IF or IHC-P.

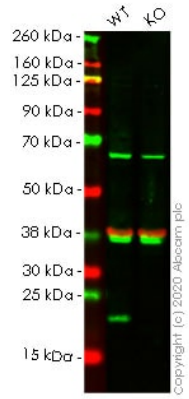
## Target

**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




Western blot - Anti-Ferritin Light Chain antibody [EPR5260] (ab109373)

**All lanes :** Anti-Ferritin Light Chain antibody [EPR5260] (ab109373) at 1/2000 dilution

**Lane 1 :** Wild-type HeLa cell lysate
**Lane 2 :** Ferritin knockout HeLa cell lysate

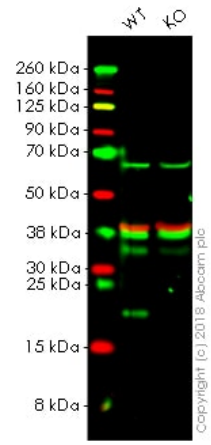
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

**Predicted band size:** 20 kDa

**Lanes 1-2:** Merged signal (red and green). Green - ab109373 observed at 20 kDa. Red - loading control **ab8245** observed at 37 kDa.

ab109373 Anti-FTL was shown to specifically react with Ferritin in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab265533** (knockout cell lysate **ab256926**) was used. Wild-type and FTL knockout samples were subjected to SDS-PAGE. ab109373 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 2000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.




Western blot - Anti-Ferritin Light Chain antibody [EPR5260] (ab109373)

**All lanes :** Anti-Ferritin Light Chain antibody [EPR5260] (ab109373) at 1/10000 dilution

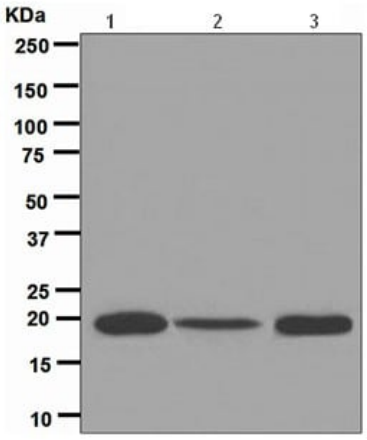
**Lane 1 :** Wild-type HAP1 whole cell lysate
**Lane 2 :** FTL (Ferritin Light Chain) knockout HAP1 whole cell lysate

Lysates/proteins at 20 µg per lane.

**Predicted band size:** 20 kDa

**Lanes 1 - 2:** Merged signal (red and green). Green - ab109373 observed at 20 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

ab109373 was shown to recognize Ferritin Light Chain in wild-type HAP1 cells as signal was lost at the expected MW in FTL (Ferritin Light Chain) knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and FTL (Ferritin Light Chain) knockout samples were subjected to SDS-PAGE. Ab109373 and **ab9484** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/10000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



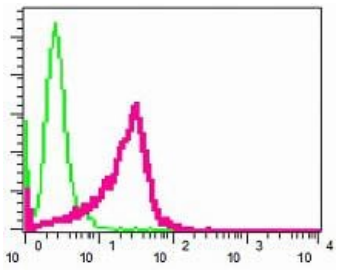

Western blot - Anti-Ferritin Light Chain antibody [EPR5260] (ab109373)

**All lanes :** Anti-Ferritin Light Chain antibody [EPR5260] (ab109373) at 1/10000 dilution

**Lane 1 :** Fetal liver lysate
**Lane 2 :** HepG2 cell lysate
**Lane 3 :** HeLa cell lysate

Lysates/proteins at 10 µg per lane.

**Predicted band size:** 20 kDa
**Observed band size:** 19 kDa




Flow Cytometry (Intracellular) - Anti-Ferritin Light Chain antibody [EPR5260] (ab109373)

Intracellular flow cytometric analysis of permeabilized HeLa cells using ab109373 at a dilution of 1/100 (red) or a rabbit IgG (negative) (green).


Anti-Ferritin Light Chain antibody [EPR5260] (ab109373)



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