Overview

Product name: Anti-Ferritin Light Chain antibody

Description: Rabbit polyclonal to Ferritin Light Chain

Host species: Rabbit

Tested applications: Suitable for: IHC-P, IHC-FoFr, IHC-Fr, WB, ICC/IF

Species reactivity: Reacts with: Mouse, Rat, Dog, Human

Predicted to work with: Orangutan

Immunogen: Synthetic peptide corresponding to Human Ferritin Light Chain aa 150 to the C-terminus (C terminal) conjugated to keyhole limpet haemocyanin.
(Peptide available as ab69089)

Positive control: This antibody gave a positive signal in the following WB lysates: Human Liver, Mouse Spleen, Rat Testis, Mouse Liver, Mouse Ovary, Rat brain

Properties

Form: Liquid

Storage instructions: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

Storage buffer: pH: 7.40
Preservative: 0.02% Sodium azide
Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity: Immunogen affinity purified

Clonality: Polyclonal

Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab69090 in the following tested applications.

32 Abreviews 37 References 5 Images
**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.

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### Application

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviars</th>
<th>Notes</th>
</tr>
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<tbody>
<tr>
<td>IHC-P</td>
<td>🌟🌟🌟🌟🌟</td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>IHC-FoFr</td>
<td>🌟🌟🌟🌟🌟</td>
<td>Use a concentration of 1 µg/ml.</td>
</tr>
<tr>
<td>IHC-Fr</td>
<td>🌟🌟🌟🌟🌟</td>
<td>Use at an assay dependent concentration. PubMed: 21248247</td>
</tr>
<tr>
<td>WB</td>
<td>🌟🌟🌟🌟🌟</td>
<td>Use a concentration of 0.5 - 1 µg/ml. Detects a band of approximately 20-21 kDa (predicted molecular weight: 19 kDa).</td>
</tr>
<tr>
<td>ICC/IF</td>
<td>🌟🌟🌟🌟🌟</td>
<td>Use a concentration of 1 µg/ml.</td>
</tr>
</tbody>
</table>

### Target

**Function**
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**Western blot - Anti-Ferritin Light Chain antibody (ab69090)**

**All lanes**: Anti-Ferritin Light Chain antibody (ab69090) at 1 µg/ml

**Lane 1**: Human liver tissue lysate - total protein (ab29889)
**Lane 2**: Liver (Rat) Tissue Lysate
**Lane 3**: Mouse spleen tissue lysate - total protein (ab29293)
**Lane 4**: Testis (Rat) Tissue Lysate - normal tissue (ab29388)
**Lane 5**: Liver (Mouse) Tissue Lysate
**Lane 6**: Ovary (Mouse) Tissue Lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes**: Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

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

*why is the actual band size different from the predicted?*

ab69090 staining Ferritin Light Chain in Rat liver tissue sections by Immunohistochemistry (IHC-Fr - frozen sections). Tissue was fixed with acetone and blocked with 10% serum for 1 hour at 21°C. Samples were incubated with primary antibody (1/400 in PBS + 0.1% Triton) for 14 hours at 4°C. An Alexa Fluor® 555-conjugated Donkey anti-rabbit IgG polyclonal (1/1000) was used as the secondary antibody.
Immunocytochemistry/ Immunofluorescence - Anti-Ferritin Light Chain antibody (ab69090)

ICC/IF image of ab69090 stained MCF7 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab69090, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue). This antibody also gave a positive result in 100% methanol fixed (5 min) HeLa, HepG2 and Hek293 cells at 1µg/ml, and in 4% formaldehyde fixed (10 min) HeLa, Hek293, HepG2 and MCF7 cells at 5µg/ml.

Immunohistochemistry (PFA perfusion fixed frozen sections) - Anti-Ferritin Light Chain antibody (ab69090)

This image is courtesy of Ruma Raha-Chowdhury, University Of Cambridge, United Kingdom

This image is of an adult mouse liver section stained with ab69090 (perfusion fixed tissue). The animals were perfused with 4% PFA. The sections were incubated in 5% normal donkey serum in 0.1% PBS- and triton X100 for 1h to permeabilise the cells and block non-specific protein-protein interactions. The sections were then incubated with the antibody (ab69090, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

Immunohistochemical analysis of Human atherosclerotic coronary intima tissue, staining Ferritin Light Chain with ab69090.

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