Product datasheet

Anti-Ferritin antibody [EPR3004Y] ab75973

Overview

Product name
Anti-Ferritin antibody [EPR3004Y]

Description
Rabbit monoclonal [EPR3004Y] to Ferritin

Host species
Rabbit

Specificity
In human, this antibody recognizes both, Ferritin heavy and light chains. In mouse and rat, it only recognizes Ferritin heavy chain.

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

Species reactivity
Reacts with: Mouse, Rat, Human

Immunogen
Synthetic peptide within Human Ferritin aa 50-150. The exact sequence is proprietary.
Database link: P02794

Positive control
WB: Jurkat, SH-SY-5Y, C6, Raw264.7, human and rat brain lysates
ICC/IF: Jurkat cells

General notes
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

This product is a recombinant rabbit monoclonal antibody.

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. Avoid freeze / thaw cycle.

Storage buffer
pH: 7.20
Preservative: 0.01% Sodium azide
Constituents: 49% PBS, 50% Glycerol, 0.05% BSA

Purity
Protein A purified
Clonality: Monoclonal  
Clone number: EPR3004Y  
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab75973 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
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<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<td>ICC/IF</td>
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<td>1/100.</td>
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<tr>
<td>IHC-Fr</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 25498860</td>
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Application notes: Is unsuitable for IHC-P.

Target

Function: Stores iron in a soluble, non-toxic, readily available form. Important for iron homeostasis. Has ferroxidase activity. 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.

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

Form: Subunit structure: Oligomer of 24 subunits. There are two types of subunits: L (light) chain and H (heavy) chain. The major chain can be light or heavy, depending on the species and tissue type. In the human liver, the heavy chain is predominant. The functional molecule forms a roughly spherical shell with a diameter of 12 nm and contains a central cavity into which the insoluble mineral iron core is deposited.
Immunofluorescence staining of Jurkat cells with purified ab75973 at a working dilution of 1/100, counter-stained with DAPI. The secondary antibody was Alexa Fluor® 488 goat anti-rabbit (ab150077), used at a dilution of 1/1000. ab7291, a mouse anti-tubulin antibody (1/1000), was used to stain tubulin along with ab150120 (Alexa Fluor® 594 goat anti-mouse, 1/1000), shown in the top right hand panel. The cells were fixed in 100% methanol and permeabilized using 0.1% Triton X 100. The negative controls are shown in bottom middle and right hand panels - for negative control 1, purified ab75973 was used at a dilution of 1/500 followed by an Alexa Fluor® 594 goat anti-mouse antibody (ab150120) at a dilution of 1/500. For negative control 2, ab7291 (mouse anti-tubulin) was used at a dilution of 1/500 followed by an Alexa Fluor® 488 goat anti-rabbit antibody (ab150077) at a dilution of 1/400.

All lanes: Anti-Ferritin antibody [EPR3004Y] (ab75973) at 1/2000 dilution (purified)

Lane 1: Rat brain lysate
Lane 2: C6 whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 21,19 kDa
Observed band size: 21 kDa

why is the actual band size different from the predicted?

Blocking buffer: 5% NFDM/TBST
Dilution buffer: 5% NFDM/TBST
Anti-Ferritin antibody [EPR3004Y] (ab75973) at 1/10000 dilution (purified) + Raw264.7 whole cell lysate at 10 µg

**Secondary**
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

**Predicted band size:** 21,19 kDa
**Observed band size:** 21 kDa
*why is the actual band size different from the predicted?*

Blocking buffer: 5% NFDM/TBST
Dilution buffer: 5% NFDM/TBST

All lanes: Anti-Ferritin antibody [EPR3004Y] (ab75973) at 1/10000 dilution (purified)

Lane 1: SH-SY5Y whole cell lysate
Lane 2: Jurkat whole cell lysate

Lysates/proteins at 10 µg per lane.

**Secondary**
All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

**Predicted band size:** 21,19 kDa
**Observed band size:** 21 kDa
*why is the actual band size different from the predicted?*

Blocking buffer: 5% NFDM/TBST
Dilution buffer: 5% NFDM/TBST
Western blot - Anti-Ferritin antibody [EPR3004Y] (ab75973)

All lanes: Anti-Ferritin antibody [EPR3004Y] (ab75973) at 1/2000 dilution (Unpurified)

Lane 1: Jurkat cell lysate
Lane 2: SH-SY-5Y cell lysate
Lane 3: Human brain lysates

Lysates/proteins at 10 µg per lane.

Secondary
All lanes: HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 21.19 kDa
Observed band size: 19.21 kDa

why is the actual band size different from the predicted?

Please note: All products are “FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES”

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