

Anti-Ferritin antibody [EPR3004Y] ab75973

KO 評価済 リコンビナント RabMAb

★★★★☆ 7 Abreviews 86 References 画像数 8

製品の概要

製品名	Anti-Ferritin antibody [EPR3004Y]
製品の詳細	Rabbit monoclonal [EPR3004Y] to Ferritin
由来種	Rabbit
特異性	We recommend following our protocol when testing ICC and recommend using lower dilution in samples having low expression level of Ferritin.
アプリケーション	適用あり: ICC/IF, Flow Cyt (Intra), WB 適用なし: IHC-P
種交差性	交差種: Mouse, Rat, Human
免疫原	Synthetic peptide within Human Ferritin aa 50-150. The exact sequence is proprietary. Database link: P02794
ポジティブ・コントロール	WB: HEK293T, Jurkat, SH-SY-5Y, C6 and Raw264.7 cell lysates; Human and rat brain lysates ICC/IF: Jurkat cells Flow Cyt (intra): SH-SY5Y cells
特記事項	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here . Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents .

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
バッファー	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA
精製度	Protein A purified

ポリ/モノ	モノクローナル
クローン名	EPR3004Y
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、**次のテスト済みアプリケーションにおけるab75973の使用に適用されます
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
ICC/IF		1/100. We recommend following our protocol when testing ICC and recommend using lower dilution in samples having low expression level of Ferritin.
Flow Cyt (Intra)		1/50.
WB	★★★★★ (6)	1/1000 - 1/2000. Detects a band of approximately 19, 21 kDa (predicted molecular weight: 21,19 kDa).

追加情報 Is unsuitable for IHC-P.

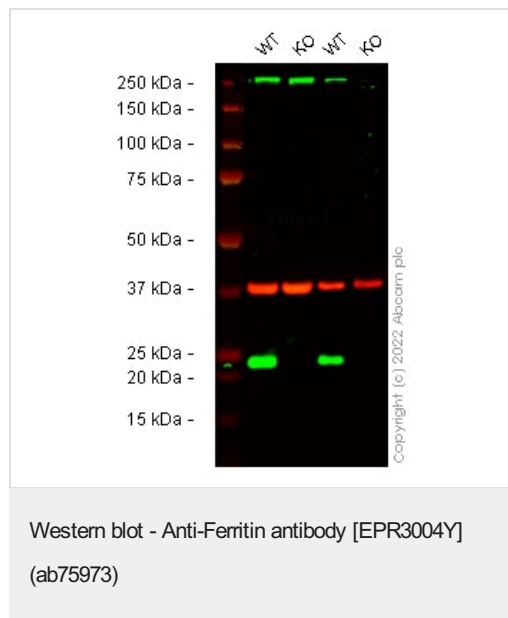
ターゲット情報

機能 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.

配列類似性 Belongs to the ferritin family.
Contains 1 ferritin-like diiron domain.

製品の状態 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.

画像



All lanes : Anti-Ferritin antibody [EPR3004Y] (ab75973) at 1/1000 dilution

Lane 1 : Wild-type MCF7 cell lysate

Lane 2 : FTH1 knockout MCF7 cell lysate

Lane 3 : Wild-type HEK-293T [ab255553](#) cell lysate

Lane 4 : FTH1 knockout HEK-293T [ab260185](#) cell lysate

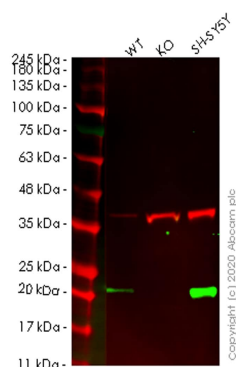
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 21,19 kDa

Observed band size: 24 kDa

False colour image of Western blot: Anti-Ferritin antibody [EPR3004Y] staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] ([ab8245](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab75973 was shown to bind specifically to Ferritin. A band was observed at 24 kDa in wild-type MCF7 cell lysates with no signal observed at this size in FTH1 knockout cell line [ab269493](#) (knockout cell lysate [ab269655](#)). To generate this image, wild-type and FTH1 knockout MCF7 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



Western blot - Anti-Ferritin antibody [EPR3004Y]
(ab75973)

All lanes : Anti-Ferritin antibody [EPR3004Y] (ab75973) at 1/1000 dilution

Lane 1 : Wild-type HEK293T cell lysate

Lane 2 : FTH1 knockout HEK293T cell lysate

Lane 3 : SH-SY5Y cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

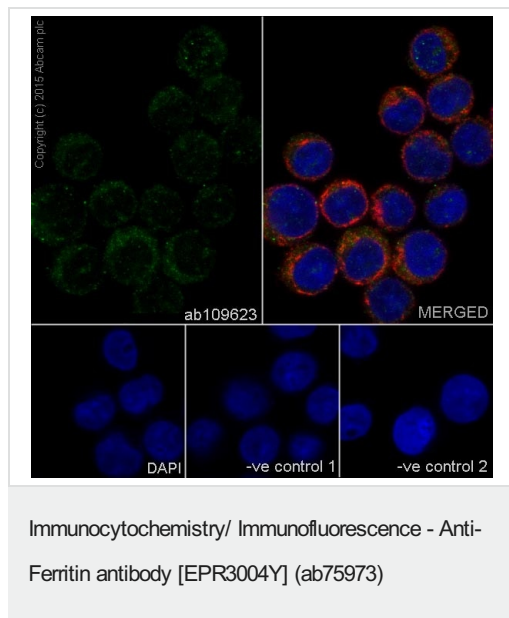
All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) at 1/10000 dilution

Predicted band size: 21,19 kDa

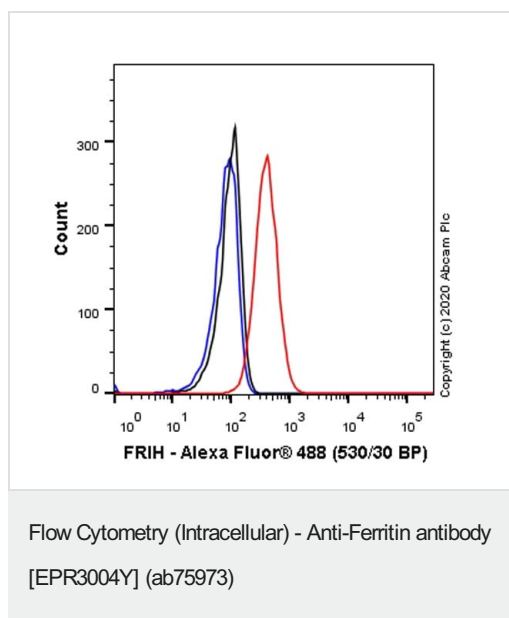
Observed band size: 21 kDa

Lanes 1-3: Merged signal (red and green). Green - ab75973 observed at 21 kDa. Red - loading control [ab8245](#) observed at 36 kDa.

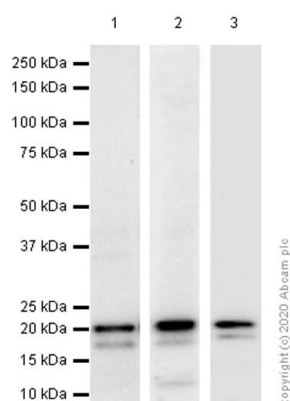
ab75973 Anti-Ferritin antibody [EPR3004Y] was shown to specifically react with Ferritin in wild-type HEK293T cells. Loss of signal was observed when knockout cell line [ab266581](#) (knockout cell lysate [ab256924](#)) was used. Wild-type and Ferritin knockout samples were subjected to SDS-PAGE. ab75973 and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) were incubated at room temperature for 2.5 hours at 1 in 1000 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.



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.



Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized SH-SY5Y (Human neuroblastoma epithelial cell) cells labelling Ferritin with ab75973 at 1/50 dilution (1µg) (Red) compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) at 1/2000 dilution was used as the secondary antibody.



Western blot - Anti-Ferritin antibody [EPR3004Y]
(ab75973)

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

Lane 1 : Jurkat (Human T cell leukemia T lymphocyte) whole cell lysates

Lane 2 : HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysates

Lane 3 : C6 (Rat glial tumor glial cell) whole cell lysates

Lysates/proteins at 20 µg per lane.

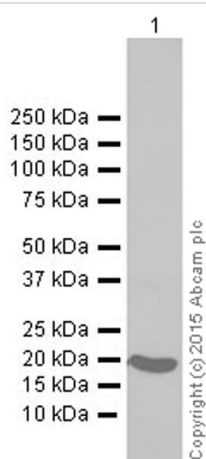
Secondary

All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/20000 dilution

Predicted band size: 21,19 kDa

Observed MW: 21 kDa

Blocking/diluting buffer and concentration: 5% NFDM/TBST



Western blot - Anti-Ferritin antibody [EPR3004Y]
(ab75973)

Anti-Ferritin antibody [EPR3004Y] (ab75973) at 1/10000 dilution (purified) + Raw264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate at 10 µg

Secondary

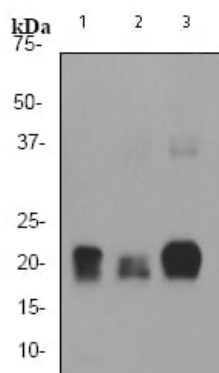
Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 21,19 kDa

Observed band size: 21 kDa

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 (Human T cell leukemia cell line from peripheral blood) cell lysate

Lane 2 : SH-SY5Y (Human neuroblastoma cell line from bone marrow) 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 choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Ferritin antibody [EPR3004Y] (ab75973)

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