

Anti-Ferritin heavy chain 1/FTH1 Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat (predicted:Dog,Pig,Cow,Horse,Rabbit,Sheep)
Molecular Weight:	Theoretical: 20 kDa.
Purification:	Protein A purified

Applications

Verified Activity:

1. Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (FTH1) Polyclonal Antibody, Unconjugated (TMAB-00666) at 1:400 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.
2. Paraformaldehyde-fixed, paraffin embedded (mouse lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (FTH1) Polyclonal Antibody, Unconjugated (TMAB-00666) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.
3. Paraformaldehyde-fixed, paraffin embedded (rat lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (FTH1) Polyclonal Antibody, Unconjugated (TMAB-00666) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.
4. Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (FTH1) Polyclonal Antibody, Unconjugated (TMAB-00666) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.
5. Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (FTH1) Polyclonal Antibody, Unconjugated (TMAB-00666) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.
6. A549 cell; 4% Paraformaldehyde-fixed; Ice-cold methanol at -20°C for 20 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Antibody incubation with (Ferritin Heavy Chain) polyclonal Antibody, Unconjugated (TMAB-00666) 1:100, 90 minutes at 37°C; followed by a FITC conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue) was used to stain the cell nucleus.
7. Blank control (Black line): Hela (Black).
 Primary Antibody (green line): Rabbit Anti-Ferritin Heavy Chain/FTH1 antibody (TMAB-00666)
 Dilution: 1 µg/10⁶ cells;
 Isotype Control Antibody (orange line): Rabbit IgG.
 Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647
 Dilution: 1 µg/test.
 Protocol

The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at room temperature. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature.

8. Blank control: Hela.

Primary Antibody (green line): Rabbit Anti-Ferritin Heavy Chain antibody (TMAB-00666)

Dilution: 1 $\mu\text{g}/10^6$ cells;

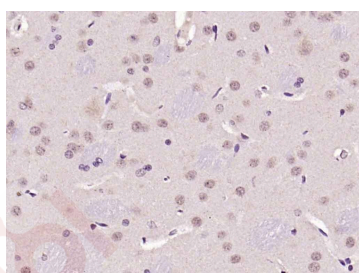
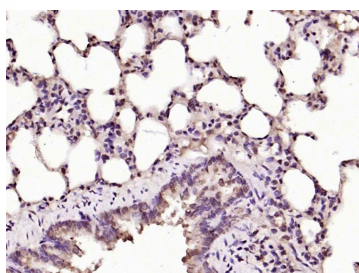
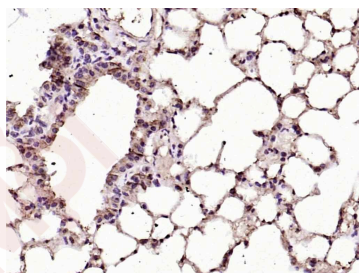
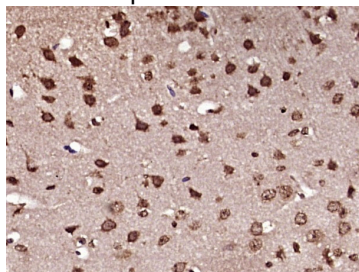
Isotype Control Antibody (orange line): Rabbit IgG.

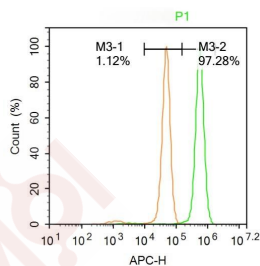
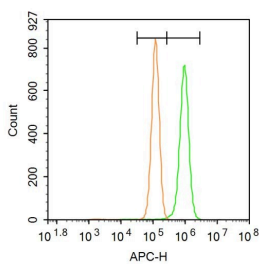
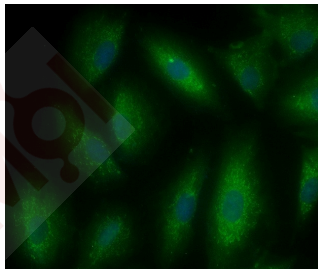
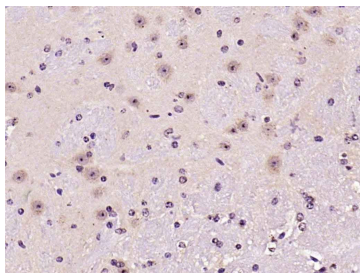
Secondary Antibody: Goat anti-rabbit IgG-AF647

Dilution: 1 $\mu\text{g}/\text{test}$.

Protocol

The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at room temperature. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at -20°C . Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature.





Application: FCM,ICC/IF,IF,IHC-Fr,IHC-P

Recommended FCM=1 µg/Test; ICC/IF=1:100-500; IF=1:100-500; IHC-Fr=1:100-500; IHC-P=1:100-500

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: KLH conjugated synthetic peptide: human Ferritin Heavy Chain

Antigen Species: Human

Gene ID: 2495

Uniprot ID: P02794

Synonyms: Ferritin heavy chain;FTHL6;Ferritin H subunit;Cell proliferation-inducing gene 15 protein;FTH1; FTH

Biology Area: Serum Proteins,Vitamins / minerals,Neurodegenerative disease,Alzheimer's disease,Vitamins / Minerals

Research Background

Mammalian ferritins consist of 24 subunits made up of two types of poly-peptide chains, ferritin heavy chain and ferritin light chain, which each have unique functions. Ferritin heavy chains catalyze the first step in iron storage, the oxidation of FeII, whereas ferritin light chains promote the nucleation of ferrihydrite, enabling storage of FeIII. The most prominent role of mammalian ferritins is to provide iron-buffering capacity to cells. In addition to iron buffering, heavy chain ferritin is also involved in the regulation of thymidine biosynthesis via increased expression of cytoplasmic serine hydroxymethyltransferase, which is a limiting factor in thymidylate synthesis in MCF-7 cells. Light chain ferritin is involved in cataracts by at least two mechanisms: hereditary hyperferritinemia cataract syndrome, in which light chain ferritin is overexpressed; and oxidative stress, an important factor in the development of aging-related cataracts.

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