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Anti-Ferritin FTH1 Rabbit Monoclonal Antibody

Catalog Number: M02401

Overview

Product Name	Anti-Ferritin FTH1 Rabbit Monoclonal Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Ferritin FTH1 Rabbit Monoclonal Antibody catalog # M02401. Tested in WB, ICC/IF applications. This antibody reacts with Human, Mouse, Rat.
Application	IF, ICC, WB
Clonality	Monoclonal FBA-6
Formulation	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P02794/P02792

Technical Details

Immunogen	A synthesized peptide derived from human Ferritin
Isotype	Rabbit IgG
Form	Liquid
Concentration	0.5mg/ml
Purification	Affinity-chromatography
Suggested Dilutions	WB 1:500-2000 ICC/IF 1:50-200

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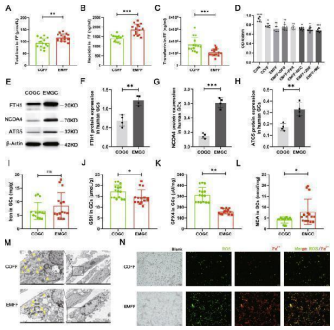
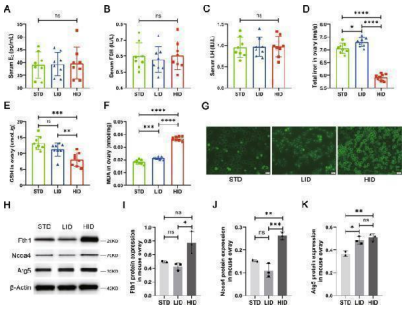
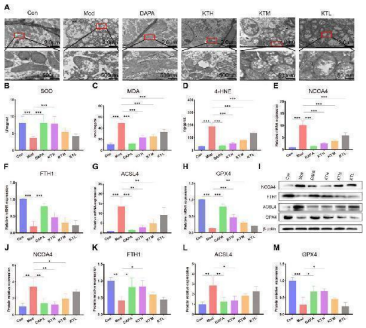
Anti-Ferritin FTH1 Rabbit Monoclonal Antibody (M02401) Images



Iron-overloaded EMFF induced ferritinophagy-dependent ferroptosis in granulosa cells. A – C Levels of total iron, hepcidin, and transferrin in EMFF (n = 15) and COFF (n = 15). Data are expressed as means ± SD and analyzed by Student’s t test. D Results of mouse granulosa cells proliferation under different intervention conditions (each group in the figure is compared with COFF group). DFO, iron chelators; FER, ferroptosis inhibitor; NEC, necrosis inhibitor; ZDF, apoptosis inhibitor; ME, autophagy inhibitor. Data are expressed as means ± SD and analyzed by one-way ANOVA. E – H Comparison of ferritinophagy-related proteins FTH1, NCOA4, and ATG5 between human granulosa cells of infertile patients with EMs (EMGC) and of control group (COGC). The expression of beta-actin was used as an internal control. Data are expressed as means ± SD and analyzed by Student’s t test. I – L Detection of ferroptosis-related indicators iron, GSH, GPX4, and MDA in COGC and EMGC. Data are expressed as means ± SD and analyzed by Student’s t test. M Representative images of the mitochondrial morphology of mouse granulosa cells intervened by COFF and EMFF were observed under TEM. Yellow arrows indicate mitochondrion. Scale bar = 1.0 μm. Scale bar = 5.0 μm. N Representative images of ROS and ferrous ion fluorescence staining after COFF and EMFF intervention in mouse granulosa cells. Scale bar = 100 μm. * P



Construction of an iron overload mouse model. A – C Serum levels of E 2 , FSH, and LH in standard iron (STD), low iron (LID), and high iron (HID) diet feeding groups (n = 8). D – F Total iron, GSH, and MDA levels in the ovary tissues of mice in each group (n = 8). G Representative images of ROS fluorescence staining of ovarian mouse granulosa cells in three groups of mice. Scale bar = 20 μm. H – K Western blot analysis of ferritinophagy-related proteins, FTH1, NCOA4, and ATG5 in mouse ovary tissues in the STD, LID, and HID group. The expression of beta-actin was used as an internal control. All data are expressed as means ± SD and analyzed by one-way ANOVA. * P



Kidney tea attenuated ferroptosis in the kidney. (A) Representative images of transmission electron microscopy of kidney samples (scale bar: 2 um/500 nm). (B) SOD activity in kidney samples. (C, D) MDA and 4-HNE levels in kidney samples. (E–H) The mRNA expression of NCOA4, FTH1, ACSL4 and GPX4 in kidney samples. (I–M) The protein levels of NCOA4, FTH1, ACSL4 and GPX4 in kidney samples. * p < 0.05, ** p < 0.01, *** p < 0.001 compared with the Mod group.Index in PubMed under a CC BY license. PMID: 38962302

Western blot analysis of Ferritin using anti-Ferritin antibody

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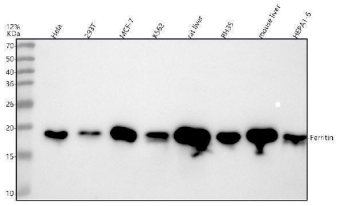
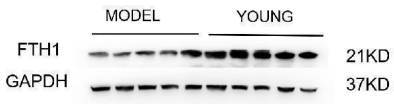
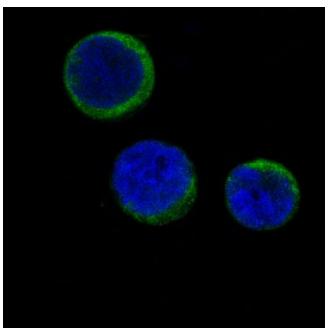


(M02401). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human 293T whole cell lysates, Lane 3: human MCF-7 whole cell lysates, Lane 4: human K562 whole cell lysates, Lane 5: rat liver tissue lysates, Lane 6: rat RH35 whole cell lysates, Lane 7: mouse liver tissue lysates, Lane 8: mouse HEPA1-6 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Ferritin antigen affinity purified monoclonal antibody (M02401) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:500 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Ferritin at approximately 19 kDa. The expected band size for Ferritin is at 21 kDa.



Western blot analysis of FTH1 using anti-FTH1 antibody (M02401). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1-5: model group-Human uterine tissue lysates, Lane 2: young group-Human uterine tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-FTH1 antigen affinity purified monoclonal antibody (M02401) at 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for FTH1 at approximately 21 kDa. The expected band size for FTH1 is at 21 kDa.



Immunofluorescent analysis of Jurkat cells, using Ferritin Antibody.

Immunofluorescent analysis using the Antibody at 1:50 dilution.

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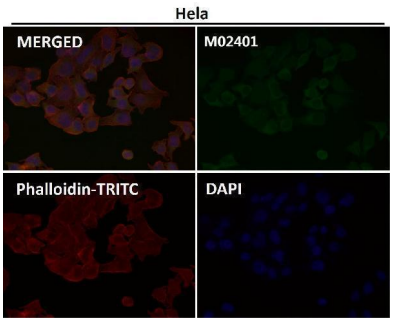

1 Publications Citing This Product

1. PubMed ID: 33722599, Xiao J,Zhang S,Tu B,Jiang X,Cheng S,Tang Q,Zhang J,Qin X,Wang B,Zou Z,Chen C. Arsenite induces ferroptosis in the neuronal cells via activation of ferritinophagy. Food Chem Toxicol.2021 Mar 12:112114.doi:10.1016/j.fct.2021.112114.Epub ahead of print.PMID:33722599.

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