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FTH1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6886b

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P02794
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB21026
Calculated MW	21226
Antigen Region	154-183

Additional Information

Gene ID	2495
Other Names	Ferritin heavy chain, Ferritin H subunit, Cell proliferation-inducing gene 15 protein, Ferritin heavy chain, N-terminally processed, FTH1, FTH, FTHL6
Target/Specificity	This FTH1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 154-183 amino acids from the C-terminal region of human FTH1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	FTH1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FTH1
Synonyms	FTH, FTHL6
Function	Stores iron in a soluble, non-toxic, readily available form. Important for iron

homeostasis. Has ferroxidase activity (PubMed:9003196). Iron is taken up in the ferrous form and deposited as ferric hydroxides after oxidation (PubMed:9003196). Also plays a role in delivery of iron to cells (By similarity). Mediates iron uptake in capsule cells of the developing kidney (By similarity). Delivery to lysosomes is mediated by the cargo receptor NCOA4 for autophagic degradation and release of iron (PubMed:24695223, PubMed:26436293).

Cellular Location Cytoplasm. Lysosome. Cytoplasmic vesicle, autophagosome

Tissue Location Expressed in the liver.

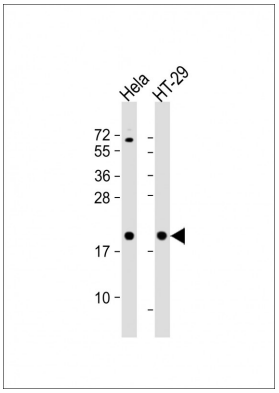
Background

FTH1 is the heavy subunit of ferritin, the major intracellular iron storage protein in prokaryotes and eukaryotes. It is composed of 24 subunits of the heavy and light ferritin chains. Variation in ferritin subunit composition may affect the rates of iron uptake and release in different tissues. A major function of ferritin is the storage of iron in a soluble and nontoxic state. Defects in ferritin proteins are associated with several neurodegenerative diseases.

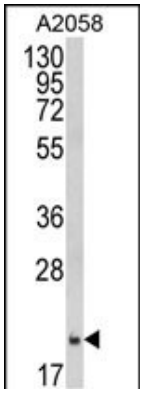
References

Almeida,R.S., et.al., PLoS Pathog. 4 (11), E1000217 (2008)

Images

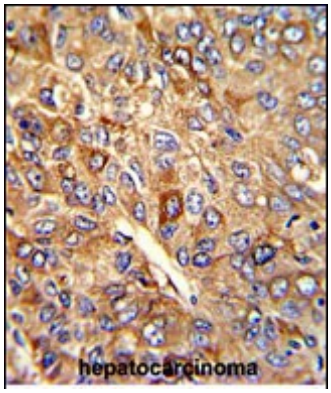


All lanes : Anti-FTH1 Antibody (C-term) at 1:1000 dilution Lane 1: Hela whole cell lysate Lane 2: HT-29 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 21 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

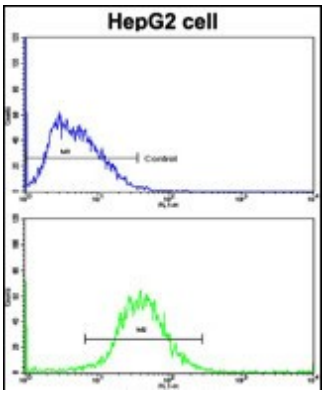


Western blot analysis of FTH1 Antibody (C-term) (Cat. #AP6886b) in A2058 cell line lysates (35ug/lane). FTH1 (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human hepatocarcinoma with FTH1 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical



relevance has not been evaluated.



Flow cytometric analysis of HepG2 cells using FTH1 Antibody (C-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.