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Ferritin Light Chain Rabbit pAb

Catalog # AP98938

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	P02792
Other Accession	P02792
Predicted	Rat, Pig, Human, Mouse, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	20020
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Ferritin Light Chain
Epitope Specificity	101-175/175
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the ferritin family. Contains 1 ferritin-like diiron domain.
SUBUNIT	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. 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. Iron enters the spherical protein shell through pores that are formed between subunits. Mutations leading to truncation or the addition of extra residues at the C-terminus interfere with normal pore formation and with iron accumulation.
DISEASE	Defects in FTL are the cause of hereditary hyperferritinemia-cataract syndrome (HHCS) [MIM:600886]. It is an autosomal dominant disease characterized by early-onset bilateral cataract. Affected patients have elevated level of circulating ferritin. HHCS is caused by mutations in the iron responsive element (IRE) of the FTL gene. Defects in FTL are the cause of neurodegeneration with brain iron accumulation type 3 (NBIA3) [MIM:606159]; also known as adult-onset basal ganglia disease. It is a movement disorder with heterogeneous presentations starting in the fourth to sixth decade. It is characterized by a variety of neurological signs including parkinsonism, ataxia, corticospinal signs, mild nonprogressive cognitive deficit and episodic psychosis. It is linked with decreased serum ferritin levels.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes the light subunit of the ferritin protein. Ferritin is 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 this light chain ferritin gene are associated with several neurodegenerative diseases and hyperferritinemia-cataract syndrome. This gene has multiple pseudogenes. [provided by RefSeq, Jul 2008].

Additional Information

Gene ID	2512
Other Names	FTL1; LFTD; NBIA3; Ftl; Ftl-1; L-ferritin; FRIL_HUMAN; Ferritin L subunit; FRIL1_MOUSE; Ferritin L subunit 1; FRIL1_RAT; ferritin light chain; ferritin, light polypeptide; ferritin light polypeptide-like 3; L apoferritin; ferritin L-chain; neurodegeneration with brain iron accumulation 3
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	FTL
Function	Stores iron in a soluble, non-toxic, readily available form. Important for iron homeostasis. 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 (By similarity). Delivery to lysosomes by the cargo receptor NCOA4 for autophagic degradation and release or iron (PubMed:24695223).
Cellular Location	Cytoplasmic vesicle, autophagosome. Cytoplasm {ECO:0000250|UniProtKB:P29391}. Autolysosome {ECO:0000250|UniProtKB:P29391}

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