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FTL Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1949a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	P02792
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	8E1E7
Isotype	IgG1
Calculated MW	20020
Description	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.
Immunogen	Purified recombinant fragment of human FTL (AA: FULL(1-157)) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide.

Additional Information

Gene ID	2512
Other Names	Ferritin light chain, Ferritin L subunit, FTL
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 ICC~~N/A E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	FTL Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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}

Background

The protein encoded by this gene belongs to the cyclic nucleotide phosphodiesterase (PDE) family, and PDE1 subfamily. Members of the PDE1 family are calmodulin-dependent PDEs that are stimulated by a calcium-calmodulin complex. This PDE has dual-specificity for the second messengers, cAMP and cGMP, with a preference for cGMP as a substrate. cAMP and cGMP function as key regulators of many important physiological processes. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. ; ;

References

1. Free Radic Biol Med. 2012 May 1;52(9):1692-7.2. Neurobiol Dis. 2010 Jan;37(1):77-85.

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