10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

FTL, Biotinylated

Peptide-affinity purified goat antibody
Catalog # AF1447b

Product Information

Application	WB, IHC, Pep-ELISA
Primary Accession	P02792
Other Accession	NP_000137, 2512, 14325 (mouse), 29292 (rat)
Reactivity	Human
Predicted	Mouse, Rat, Dog
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Calculated MW	20020

Additional Information

Gene ID	2512
Other Names	Ferritin light chain, Ferritin L subunit, FTL
Dilution	WB~~1:1000 IHC~~1:100~500 Pep-ELISA~~N/A
Format	0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin
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, Biotinylated 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

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.

References

Genetic variation and antioxidant response gene expression in the bronchial airway epithelium of smokers at risk for lung cancer. Wang X, et al. PLoS One, 2010 Aug 3. PMID 20689807.
Proteome analysis of the thalamus and cerebrospinal fluid reveals glycolysis dysfunction and potential biomarkers candidates for schizophrenia. Martins-de-Souza D, et al. J Psychiatr Res, 2010 May 14. PMID 20471030.
Sex-specific proteome differences in the anterior cingulate cortex of schizophrenia. Martins-de-Souza D, et al. J Psychiatr Res, 2010 Apr 8. PMID 20381070.
Toluene diisocyanate (TDI) regulates haem oxygenase-1/ferritin expression: implications for toluene diisocyanate-induced asthma. Kim SH, et al. Clin Exp Immunol, 2010 Jun. PMID 20345975.
Mutant ferritin L-chains that cause neurodegeneration act in a dominant-negative manner to reduce ferritin iron incorporation. Luscieti S, et al. J Biol Chem, 2010 Apr 16. PMID 20159981.

Images

Biotinylated EB09092 (1 µg/ml) staining of Rat Brain lysate (35 µg protein in RIPA buffer), exactly mirroring its parental non-biotinylated product. Primary incubation was 1 hour. Detected by chemiluminescence, using streptavidin-HRP and using NAP blocker a