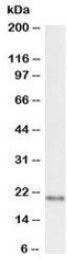
FTL Antibody Biotin Conjugate / Ferritin Light Chain Antibody (R34085BTN)

Catalog No.	Formulation	Size
R34085BTN	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Predicted Reactivity	Dog, Cow
Format	Biotin Conjugate
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	2512
Applications	Western Blot : 1-3ug/ml Immunohistochemistry (FFPE) : suitable ELISA (peptide) LOD : 1:128000
Limitations	This FTL Antibody Biotin Conjugate / Ferritin Light Chain Antibody is available for research use only.



FTL Antibody Biotin Conjugate WB. Western blot testing of rat brain lysate with biotinylated FTL antibody at 1ug/ml. Predicted molecular weight: ~20kDa.

Description

Ferritin light chain (FTL) is a cytoplasmic iron storage protein that functions as a structural component of the ferritin complex, regulating intracellular iron sequestration, iron mineralization, and ferritin nanocage stability. Together with ferritin heavy chain, FTL contributes to cellular iron buffering and protection against iron-mediated oxidative stress. FTL

Antibody Biotin Conjugate is useful for investigations involving ferritin-associated iron homeostasis, oxidative stress-responsive pathways, and intracellular iron storage biology using biotin-streptavidin detection systems.

FTL antibody, also referred to as Ferritin light chain antibody and Ferritin L antibody in the literature, recognizes a highly conserved ferritin subunit encoded on chromosome 19q13.33. Ferritin light chain localizes predominantly to the cytoplasm, where it participates in ferritin complex assembly and stabilization of mineralized iron cores. Expression of FTL is widespread in metabolically active tissues including liver, spleen, kidney, lung, pancreas, and brain, reflecting the essential role of ferritin-mediated iron regulation across diverse cellular environments.

FTL Antibody Biotin Conjugate / Ferritin Light Chain Antibody is supplied as a biotinylated goat polyclonal antibody suitable for biotin-streptavidin based detection workflows and signal amplification approaches. Biotin conjugation supports flexible integration into immunohistochemistry, immunofluorescence, ELISA, blotting, and other research applications utilizing avidin- or streptavidin-associated detection systems. The polyclonal nature of this reagent may support recognition of multiple ferritin light chain epitopes across native and processed protein conformations.

Ferritin complexes play a central role in intracellular iron storage and maintenance of cellular iron homeostasis. Within the ferritin nanocage, ferritin light chain contributes primarily to structural organization and long-term iron mineralization, complementing the ferroxidase activity of ferritin heavy chain. Altered FTL expression has been associated with inflammatory signaling pathways, neurodegenerative disease processes, tumor-associated metabolic adaptation, oxidative stress response pathways, and iron overload disorders.

FTL expression is particularly prominent in tissues with high metabolic demand or active iron turnover, including liver, spleen, kidney, and lung. Ferritin-associated iron sequestration is essential for limiting formation of reactive oxygen species generated through iron-dependent oxidative reactions. Because ferritin expression is responsive to iron availability, inflammatory cytokines, and metabolic stress pathways, ferritin light chain serves as a useful marker for investigations involving iron-responsive cellular adaptation and oxidative stress-associated tissue regulation.

This biotinylated goat polyclonal FTL Antibody supports research involving ferritin complex assembly, intracellular iron sequestration, oxidative stress biology, inflammatory signaling pathways, neurodegeneration, metabolic adaptation, and iron-responsive cellular regulation. The antibody may be incorporated into tissue-based and biochemical investigations examining ferritin-associated iron homeostasis in normal and diseased tissues.

For highly specific ferritin light chain detection validated by large-scale protein microarray screening, see our FTL Antibody / Ferritin Complex Assembly Antibody page featuring clone FTL/1387 with WB, IHC, and protein microarray specificity validation data.

Application Notes

Optimal dilution of the FTL Antibody Biotin Conjugate / Ferritin Light Chain Antibody should be determined by the researcher.

Immunogen

Amino acids GEYLFERLTLKHD were used as the immunogen for this FTL antibody.

Storage

Aliquot and store the FTL antibody at -20oC.

Alternate Names

FTL antibody, Ferritin light chain antibody, Ferritin L antibody, Biotinylated FTL antibody, Ferritin light polypeptide antibody