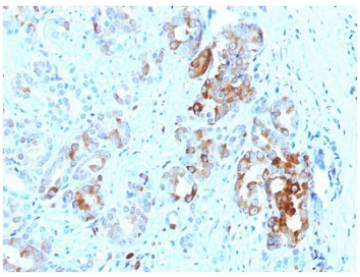
FTL Antibody / Ferritin Complex Assembly Antibody [clone FTL/1387] (V7412)

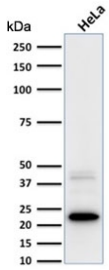
Catalog No.	Formulation	Size
V7412-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7412-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7412SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7412IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

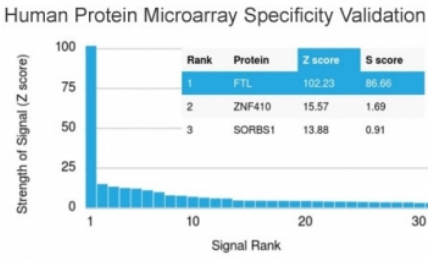
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	FTL/1387
Purity	Protein G affinity chromatography
UniProt	P02792
Localization	Cytoplasmic
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 0.1-0.2ug/ml for 30 min at RT
Limitations	This FTL Antibody / Ferritin Complex Assembly Antibody is available for research use only.



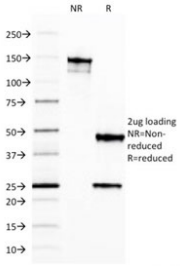
FTL Antibody Prostate IHC. Immunohistochemistry analysis of FFPE human prostate tissue stained with FTL Antibody demonstrates granular cytoplasmic HRP-DAB brown staining within glandular epithelial cell populations, consistent with expression of ferritin light chain / FTL in metabolically active secretory epithelial compartments. This ferritin complex assembly antibody highlights intracellular ferritin-associated iron sequestration pathways and oxidative stress-responsive cellular regulation in prostate tissue. HIER: boil tissue sections in 10mM citrate buffer, pH 6, for 10-20 min and allow to cool before testing.



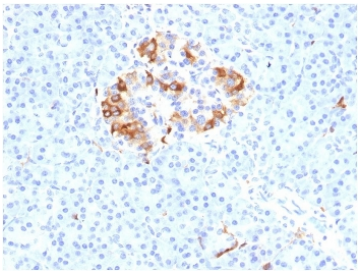
FTL Antibody HeLa WB. Western blot analysis of human HeLa cell lysate using FTL Antibody detects a strong band at approximately 20 kDa, consistent with ferritin light chain / FTL. A weaker higher molecular weight band may represent ferritin complex-associated or partially processed ferritin species. This ferritin complex assembly antibody supports detection of an intracellular ferritin subunit involved in iron sequestration, ferritin nanocage organization, and oxidative stress-responsive cellular regulation pathways.



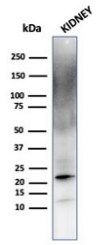
FTL Antibody HuProt Microarray Validation. Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using FTL Antibody demonstrates highly selective recognition of ferritin light chain / FTL with strong separation from non-target proteins across the tested human proteome. This ferritin complex assembly antibody showed the highest signal intensity for FTL, supporting the foremost specificity of clone FTL/1387 in large-scale protein microarray validation studies. In HuProt(TM) analysis, the Z-score represents the strength of antibody binding signal relative to the overall array mean, while the S-score reflects target specificity relative to the next highest ranked protein signal. Elevated S-score separation supports preferential target recognition and reduced off-target reactivity in complex proteomic environments.



SDS-PAGE analysis of purified, BSA-free FTL antibody as confirmation of integrity and purity.



FTL Antibody Pancreas IHC. Immunohistochemistry analysis of FFPE human pancreas tissue stained with FTL Antibody demonstrates strong granular cytoplasmic HRP-DAB brown staining within clustered islet-associated endocrine cell populations, while surrounding exocrine pancreatic tissue shows comparatively lower background reactivity. The staining pattern is consistent with expression of ferritin light chain / FTL in metabolically active pancreatic cellular compartments involved in ferritin complex assembly and intracellular iron sequestration pathways. This ferritin complex assembly antibody highlights ferritin-associated oxidative stress-responsive cellular regulation within pancreatic tissue. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



FTL Antibody Kidney WB. Western blot analysis of human kidney tissue lysate using FTL Antibody detects a strong band at approximately 20 kDa, consistent with ferritin light chain / FTL. Additional diffuse higher molecular weight signal may reflect ferritin complex-associated species or partially assembled ferritin protein complexes present in metabolically active renal tissue. This ferritin complex assembly antibody supports detection of intracellular ferritin-associated iron sequestration pathways and oxidative stress-responsive cellular regulation in kidney tissue.

Description

Ferritin light chain (FTL) is a cytoplasmic iron-binding protein that functions as a major structural component of the ferritin complex, contributing to ferritin shell assembly, intracellular iron sequestration, and long-term iron mineralization. Together with ferritin heavy chain, FTL forms multimeric ferritin nanocages that regulate cellular iron homeostasis and protect tissues from iron-associated oxidative stress. FTL Antibody is useful for investigations involving ferritin complex biology, intracellular iron regulation, oxidative stress-associated pathways, and iron-responsive metabolic adaptation.

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 contributes to ferritin complex stability and mineralized iron core formation. FTL expression is widespread in metabolically active tissues including liver, spleen, lung, kidney, and brain, reflecting the central role of ferritin-mediated iron buffering across diverse tissue systems and cellular environments.

FTL Antibody / Ferritin Complex Assembly Antibody (clone FTL/1387) is uniquely positioned for studies involving ferritin complex organization and ferritin-associated iron storage pathways. This mouse monoclonal antibody demonstrates strong detection of ferritin light chain in western blot and immunohistochemistry applications together with HuProt microarray specificity validation against more than 19,000 full-length human proteins. The broad validation profile supports use of clone FTL/1387 in studies examining ferritin assembly, iron sequestration mechanisms, oxidative stress response pathways, and iron-responsive metabolic regulation.

Analysis of HuProt(TM) microarrays containing more than 19,000 individually purified full-length human proteins demonstrated highly selective recognition of ferritin light chain by clone FTL/1387. In HuProt(TM) analysis, the Z-score represents the strength of antibody binding signal relative to the overall array mean, while the S-score reflects target specificity relative to the next highest ranked protein signal. Elevated S-score separation supports preferential target recognition and reduced off-target binding across the tested human proteome. This specificity validation approach is valuable for studies involving complex tissue lysates, ferritin-associated protein networks, and heterogeneous cellular environments.

Ferritin complexes are essential for intracellular iron buffering and protection against iron-dependent reactive oxygen species generation. Within the ferritin nanocage, ferritin light chain contributes primarily to structural stability and iron core mineralization, complementing the ferroxidase activity of ferritin heavy chain. Altered FTL expression has been associated with neurodegenerative disorders, inflammatory signaling, iron overload syndromes, cancer metabolism, and oxidative stress-associated tissue injury. Because ferritin expression is responsive to iron availability, cytokine signaling, and metabolic stress pathways, FTL serves as a useful marker for investigations involving iron-responsive cellular adaptation and ferritin-associated metabolic regulation.

This FTL Antibody supports research involving ferritin complex assembly, intracellular iron sequestration, oxidative stress biology, iron-responsive signaling pathways, neurodegeneration, inflammatory regulation, and tumor-associated metabolic adaptation. Clone FTL/1387 may be incorporated into western blot, immunohistochemistry, and tissue-based investigations examining ferritin organization and iron homeostasis in normal and diseased tissues.

Explore additional iron metabolism and oxidative stress pathway markers on our Metabolism Antibodies landing page,

including antibodies targeting ferritin complex biology, ferroptosis-associated signaling, and intracellular iron homeostasis pathways.

Application Notes

Optimal dilution of the FTL Antibody / Ferritin Complex Assembly Antibody should be determined by the researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Amino acids 38-165 from the human protein were used as the immunogen for this FTL antibody.

Storage

Store the FTL antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Ferritin light chain antibody, FTL antibody, Ferritin L antibody, Ferritin complex protein antibody, Ferritin light polypeptide antibody

References (1)

Copyright © NSJ Bioreagents. All rights reserved.