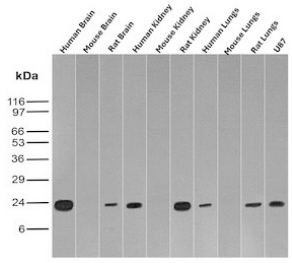
FTH1 Antibody / Ferritin Heavy Chain 1 Antibody [clone FTH/2081] (V7791)

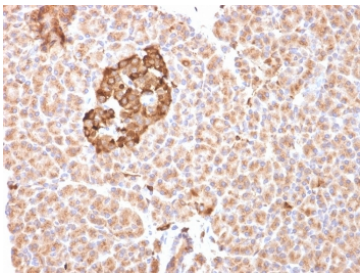
Catalog No.	Formulation	Size
V7791-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7791-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7791SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

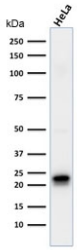
Availability	1-3 business days
Species Reactivity	Human, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2c, kappa
Clone Name	FTH/2081
Purity	Protein G affinity chromatography
UniProt	P02794
Localization	Cytoplasmic
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This FTH1 Antibody / Ferritin Heavy Chain 1 Antibody is available for research use only.



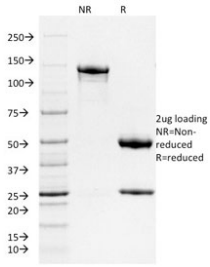
FTH1 Antibody Multi-Tissue WB. Western blot analysis of human, mouse, and rat brain, kidney, and lung lysates together with human U87 cell lysate using monoclonal clone FTH/2081 demonstrates distinct bands near 20-24 kDa, consistent with the expected molecular weight of Ferritin heavy chain 1 / FTH1. The broad cross-species expression pattern supports the established role of FTH1 as a conserved intracellular iron storage protein involved in iron homeostasis, oxidative stress regulation, and cellular metabolic balance across multiple tissue types.



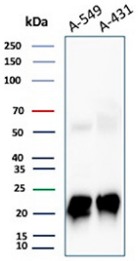
FTH1 Antibody Pancreas IHC. Immunohistochemistry staining of FFPE human pancreas tissue using FTH1 Antibody / Ferritin Heavy Chain 1 Antibody demonstrates diffuse granular cytoplasmic HRP-DAB brown staining throughout pancreatic epithelial and acinar-associated cell populations, with enhanced staining intensity in clustered glandular structures. The observed staining profile supports expression of Ferritin heavy chain 1 / FTH1 in metabolically active pancreatic tissue involved in intracellular iron sequestration and oxidative stress-associated homeostasis pathways. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.



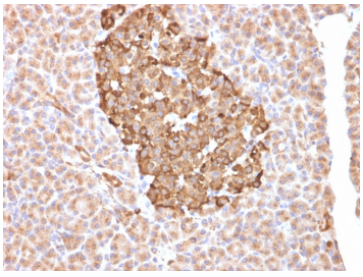
Western blot testing of human HeLa cell lysate with FTH1 antibody (clone FTH/2081). Predicted molecular weight ~21 kDa.



SDS-PAGE analysis of purified, BSA-free FTH1 antibody (clone FTH/2081) as confirmation of integrity and purity.



FTH1 Antibody Lung Carcinoma WB. Western blot analysis of human A-549 and A-431 cell lysates using FTH1 Antibody FTH/2081 demonstrates strong bands near 20-24 kDa corresponding to Ferritin heavy chain 1 / FTH1, with additional faint higher molecular weight signal likely representing ferritin-associated multimeric or incompletely denatured protein species. The observed expression profile supports the established role of FTH1 in intracellular iron sequestration, oxidative stress protection, and metabolic adaptation within epithelial carcinoma-derived cell lines.



FTH1 Antibody Pancreatic Islet Cell IHC. Immunohistochemistry staining of FFPE human pancreas tissue using FTH1 Antibody / Ferritin Heavy Chain 1 Antibody demonstrates strong granular cytoplasmic HRP-DAB brown staining within clustered islet-associated endocrine cell populations with comparatively lighter surrounding exocrine tissue staining. The observed staining pattern is consistent with Ferritin heavy chain 1 / FTH1 expression in metabolically active pancreatic compartments involved in intracellular iron homeostasis and oxidative stress response pathways. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.

Description

Ferritin Heavy Chain 1 (FTH1), commonly known as Ferritin Heavy Chain, is an intracellular iron storage protein involved in iron sequestration, ferroxidase activity, oxidative stress regulation, and maintenance of cellular iron homeostasis. FTH1 Antibody / Ferritin Heavy Chain 1 Antibody recognizes a conserved ferritin complex subunit responsible for detoxification and intracellular storage of excess iron within ferritin nanocage structures.

FTH1 antibody, also referred to as Ferritin Heavy Chain antibody and Ferritin H antibody in the literature, is useful for

investigation of iron metabolism pathways, oxidative stress adaptation, ferroptosis-associated signaling, and metabolic regulation. Monoclonal clone FTH/2081 supports studies examining intracellular ferritin expression across multiple tissues, epithelial-derived tumors, and metabolically active cellular systems.

Ferritin complexes are assembled from heavy and light chain ferritin subunits that collectively regulate intracellular iron buffering and storage capacity. The heavy chain component encoded by FTH1 provides ferroxidase activity required for conversion of reactive ferrous iron into ferric iron prior to sequestration within ferritin complexes, thereby limiting oxidative injury associated with excess free iron accumulation.

FTH1 expression is broadly distributed across brain, kidney, lung, pancreas, and epithelial cellular systems where iron metabolism and oxidative stress adaptation are critical for normal cellular physiology. Because iron homeostasis influences mitochondrial metabolism, DNA synthesis, cellular proliferation, and reactive oxygen species-associated signaling, Ferritin Heavy Chain 1 contributes to multiple metabolic and stress-associated pathways.

In cancer-associated research, elevated FTH1 expression has been linked to tumor-associated metabolic adaptation, inflammatory signaling, ferroptosis resistance, and oxidative stress protection mechanisms. Ferritin-associated pathways have therefore become increasingly important in studies examining tumor metabolism, iron dependency states, and cellular stress response signaling.

Western blot analysis with FTH1 antibodies commonly demonstrates monomeric Ferritin Heavy Chain near approximately 20-24 kDa across multiple tissue and cell line lysates, while immunohistochemistry staining frequently reveals granular cytoplasmic staining patterns consistent with intracellular ferritin localization in metabolically active tissues and epithelial-derived tumors.

The broad cross-species expression profile observed with clone FTH/2081 supports the conserved role of FTH1 in intracellular iron regulation and oxidative stress-associated metabolic homeostasis. The biologic importance of ferritin-mediated iron sequestration further supports the value of FTH1 antibodies in metabolism and ferroptosis-related research applications.

Together, the available western blot and immunohistochemistry data support the use of FTH1 antibody clone FTH/2081 for investigating intracellular iron storage pathways, ferritin-associated oxidative stress regulation, and ferroptosis-linked metabolic signaling.

For additional ferritin and iron metabolism research antibodies featuring broad multi-species western blot validation, explore the broader Ferritin Heavy Chain Antibody page featuring recombinant clone FTH/8700R.

Application Notes

Optimal dilution of the FTH1 Antibody / Ferritin Heavy Chain 1 Antibody should be determined by the researcher.

Immunogen

A human recombinant partial protein (amino acids 58-180) were used as the immunogen for the FTH1 antibody.

Storage

Store the FTH1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

FTH1 antibody, Ferritin Heavy Chain antibody, Ferritin H antibody, ferritin heavy polypeptide 1 antibody, iron metabolism protein antibody

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