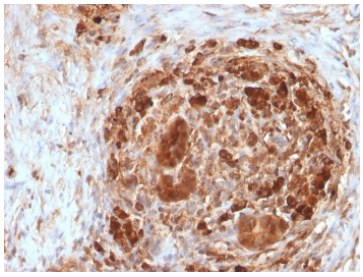
FTH Antibody / Ferritin heavy chain [clone FTH/2082] (V8509)

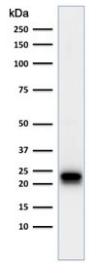
Catalog No.	Formulation	Size
V8509-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8509-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8509SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

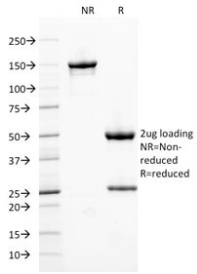
Availability	1-3 business days
Species Reactivity	Human, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2c, kappa
Clone Name	FTH/2082
Purity	Protein G affinity chromatography
UniProt	P02794
Localization	Cytoplasmic
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT
Limitations	This FTH antibody is available for research use only.



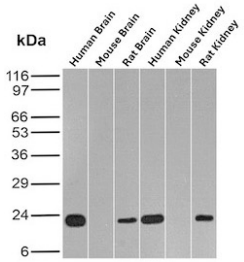
IHC staining of FFPE human pancreas with FTH antibody. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



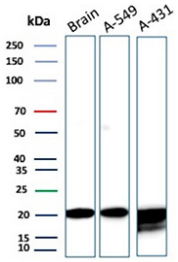
Western blot testing of human HeLa cell lysate with FTH antibody. Predicted molecular weight: ~21 kDa.



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



FTH Antibody Brain and Kidney WB. Western blot analysis of human, mouse, and rat brain and kidney tissue lysates using monoclonal clone FTH/2082 demonstrates distinct bands near 20-24 kDa corresponding to Ferritin heavy chain / FTH1 across multiple species and tissue types. The conserved expression profile supports the established role of FTH proteins in intracellular iron sequestration, oxidative stress protection, and maintenance of cellular iron homeostasis within metabolically active neural and renal tissues.



FTH Antibody Neural and Carcinoma WB. Western blot analysis of human brain, A-549, and A-431 lysates using monoclonal clone FTH/2082 demonstrates strong bands near 20-24 kDa consistent with Ferritin heavy chain / FTH1 expression. The observed signal across neural and epithelial carcinoma-derived samples supports the established role of FTH proteins in intracellular iron storage, oxidative stress response pathways, and metabolic adaptation in both normal and tumor-associated tissues.

Description

Mammalian ferritins consist of 24 subunits made up of 2 types of poly-peptide chains, ferritin heavy chain and ferritin light chain, which each have unique functions. Ferritin heavy chains catalyze the first step in iron storage, the oxidationof FeI(II), whereas ferritin light chains promote the nucleation of ferrihydrite, enabling storage of Fe(III). The most prominent role of mammalian ferritins is to provide iron-buffering capacity to cells. In addition to iron buffering, heavy chain ferritin is also involved in the regulation of thymidine biosynthesis via increased expression of cytoplasmic serine hydroxymethyltransferase, which is a limiting factor in thymidylate synthesis in MCF-7 cells. Light chain ferritin is involved in cataracts by at least two mechanisms: hereditary hyperferritinemia cataract syndrome, in which light chain ferritin is overexpressed; and oxidative stress, an important factor in the development of aging-related cataracts.

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 FTH antibody should be determined by the researcher.

Immunogen

A portion of amino acids 58-180 from the human protein was used as the immunogen for the FTH antibody.

Storage

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

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