

Ferritin, Heavy Chain Monoclonal Mouse Antibody (FTH/2081)

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Product 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 oxidation of 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.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the <u>CF® Dye Brochure</u> for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

Stock status: Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email order@biotium.com to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 2081, Anti-Ferritin, Heavy Chain (FTH/2081)

Call us : <u>800-304-5</u>	357 Email: techsupport@biotium.com				
Product attributes					
Antibody number	#2081				
Antibody reactivity (target)	Ferritin, Heavy Chain				
Antibody type	Primary				
Host species	Mouse				
Clonality	Monoclonal				
Clone	FTH/2081				
Isotype	IgG2a, kappa				
Molecular weight	21 kDa				
Synonyms	Apoferritin; Cell proliferation-inducing gene 15 protein; Ferritin H subunit; Ferritin heavy chain; FHC; FRIH; FTH1; FTHL6; Iron overload autosomal dominant; PIG15; Placenta immunoregulatory factor; Proliferation inducing gene 15 protein (PLIF)				
Human gene symbol	FTH1				
Entrez gene ID	2495				
SwissProt	P02794				
Unigene	524910; 645560				
Immunogen	Recombinant human FTH1 protein fragment (around aa 58-180) (exact sequence is proprietary)				
Verified antibody applications	IHC (FFPE) (verified), WB (verified)				
Antibody target cellular localization	Cytoplasmic				
Species reactivity	Human				
Positive control	HepG2, HeLa, HL-60 or 293T cells. Pancreas, Liver, Cerebellum or Testis.				
Shipping condition	Room temperature				
Storage Conditions	Store at 2 to 8 $^\circ\text{C},$ Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 $^\circ\text{C}$				
Regulatory status	For research use only (RUO)				
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide				
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended				
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.				

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	CF®405S Features
BNC88	CF®488A	490/515	488	GFP, FITC	CF®488A Features
BNC68	CF®568	562/583	532, 561	RFP, TRITC	CF®568 Features
BNC94	CF®594	593/614	561	Texas Red®	CF®594 Features
BNC40	CF®640R	642/662	633-640	Cy®5	CF®640R Features
BNC47	CF®647	650/665	633-640	Cy®5	CF®647 Features
BNC74	CF®740	742/767	633-685	775/50	CF®740 Features
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

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