Anti-Ferritin Heavy Chain Antibody [JM22-36] ET1705-55

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	IHC-P
Molecular Wt:	Predicted band size: 21 kDa
Clone number:	JM22-36

Description: Mammalian ferritins consist of 24 subunits made up of two 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 FeII, whereas ferritin light chains promote the nucleation of ferrihydrite, enabling storage of FeIII. The most prominent role of mamma-lian 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.

Immunogen: Synthetic peptide within C-terminal human Ferritin Heavy Chain.

Positive control: Human kidney tissue, human liver tissue, human placenta tissue.

Subcellular location: Cytoplasm. Nucleus.

Database links: SwissProt: P02794 Human

Recommended Dilutions:

IHC-P	1:200-1:1,000

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

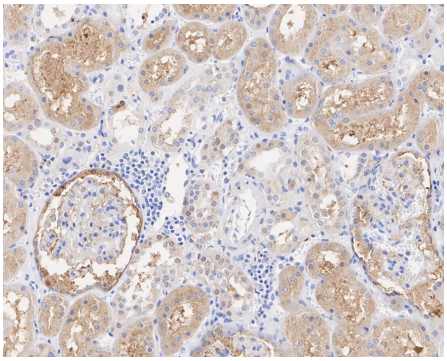

Fig1: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-Ferritin Heavy Chain antibody (ET1705-55) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1705-55) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

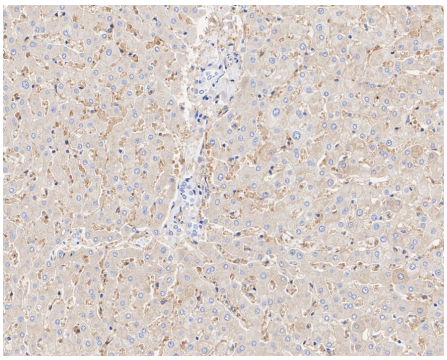

Fig2: Immunohistochemical analysis of paraffin-embedded human liver tissue with Rabbit anti-Ferritin Heavy Chain antibody (ET1705-55) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1705-55) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

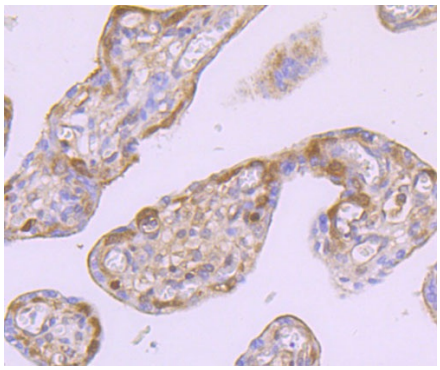

Fig3: Immunohistochemical analysis of paraffin-embedded human placenta tissue using anti-Ferritin Heavy Chain antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1705-55, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Vannucci L et al. In Vivo Targeting of Cutaneous Melanoma Using an Melanoma Stimulating Hormone-Engineered Human Protein Cage with Fluorophore and Magnetic Resonance Imaging Tracers. J Biomed Nanotechnol 11:81-92 (2015).
2. Yang H et al. Upregulation of mitochondrial ferritin by proinflammatory cytokines: implications for a role in Alzheimer's disease. J Alzheimers Dis 45:797-811 (2015).