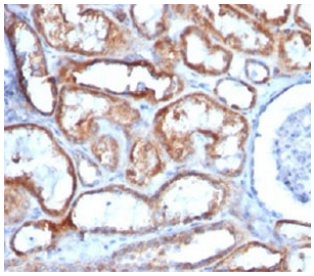
Mitochondrial Marker Antibody [clone 113-1] (V2352)

Catalog No.	Formulation	Size
V2352-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2352-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2352SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2352IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

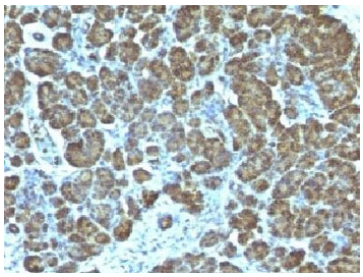
Citations (10)

Bulk quote request

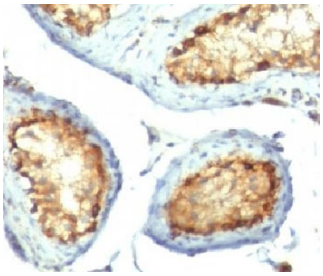
Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	113-1
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
Gene ID	Unknown
Localization	Mitochondria in cytoplasm
Applications	Immunofluorescence : 1-2ug/ml Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This **Mitochondrial marker antibody** is available for research use only.



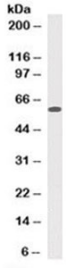
IHC testing of renal cell carcinoma and Mitochondrial Marker antibody (113-1).



IHC testing of FFPE human pancreas with Mitochondrial Marker antibody



IHC testing of FFPE human testicular carcinoma with Mitochondrial Marker antibody



Western blot testing of human HeLa cell lysate with Mitochondrial Marker antibody (clone 113-1).

Description

Mitochondrial Marker antibody clone 113-1 is a monoclonal antibody that recognizes a conserved mitochondrial antigen expressed across human and animal tissues. Because mitochondria are central to cellular metabolism, energy production, and apoptosis, this antibody provides a robust means of labeling mitochondria in diverse research applications. NSJ Bioreagents supplies Mitochondrial Marker antibody clone 113-1 for cell biology, pathology, and metabolic studies.

Mitochondrial Marker antibody clone 113-1 produces strong cytoplasmic and perinuclear staining, revealing the distribution of mitochondria within cells. Its consistent labeling makes it a valuable tool for assessing mitochondrial abundance, morphology, and distribution. In cell biology, researchers use this antibody to investigate mitochondrial dynamics, including fusion, fission, and trafficking.

In pathology, Mitochondrial Marker antibody clone 113-1 has been applied to identify cells of epithelial origin, as mitochondria-rich cytoplasm is a distinguishing feature of many epithelial tissues. It is frequently used in diagnostic panels to evaluate oncocytic tumors, which are characterized by abundant mitochondria. Detection with clone 113-1 supports the classification of renal oncocytoma, thyroid oncocytic carcinoma, and other mitochondrial-rich tumors.

In metabolic research, Mitochondrial Marker antibody clone 113-1 is employed to explore mitochondrial function in both health and disease. Altered mitochondrial activity has been implicated in metabolic syndromes, neurodegenerative disorders, and cardiovascular disease. By labeling mitochondria, this antibody helps track functional and structural changes associated with these conditions.

Mitochondrial Marker antibody clone 113-1 is also useful in apoptosis studies, as mitochondrial pathways regulate cytochrome c release and caspase activation. Researchers use it to assess mitochondrial involvement in programmed cell death and to evaluate therapeutic strategies targeting mitochondrial integrity.

Validated in tissue-based and cell-based assays, clone 113-1 consistently produces clear mitochondrial staining. It has been extensively cited in studies spanning pathology, metabolism, and cell biology. Alternate names include mitochondrial antigen antibody, mitochondria-specific antibody, and mitochondrial structural protein antibody.

Clone 113-1 antibody recognizes a 60kDa antigen that is a mitochondrial marker in human cells. Immunostaining produces a spaghetti-like pattern in normal and malignant cells. This mitochondrial marker antibody is an excellent marker for human cells in xenographic model research.

Application Notes

Differences in protocols and secondaries may require the Mitochondrial marker antibody 113-1 to be titered for optimal performance.

1. FFPE staining is enhanced by boiling tissue sections in 1mM EDTA Buffer, pH 8.5-9.5, for 10-20 min followed by cooling at RT for 20 minutes.
2. 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

A semi-purified mitochondrial preparation was used as the immunogen for this Mitochondrial marker antibody.

Storage

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

References (3)