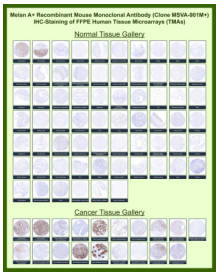
Melan A Antibody for IHC / MLANA Immunohistochemistry Antibody [clone MSVA-901M+] (V5892)

Catalog No.	Formulation	Size
V5892-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5892-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	MSVA-901M+
Purity	Protein G affinity
UniProt	Q16655
Localization	Endoplasmic reticulum membrane, Golgi apparatus, Melanosome, trans-Golgi network membrane
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This Melan A Antibody for IHC / MLANA Immunohistochemistry Antibody is available for research use only.



Melan A Antibody for IHC Tissue Microarray (TMA) multi-tissue expression. Immunohistochemistry analysis of MLANA expression in FFPE human tissue microarray (TMA) sections using Melan A Antibody for IHC clone MSVA-901M+ demonstrates strong cytoplasmic HRP-DAB brown staining in melanocytic cells, including normal melanocytes and melanoma tumor cells, while the majority of non-melanocytic tissues remain negative. In cancer tissue arrays, diffuse cytoplasmic staining highlights melanoma tumor cell populations with high specificity, with minimal background in stromal and epithelial compartments. The staining pattern enables clear identification of melanocytic lineage across diverse tissue types and aligns with known MLANA expression profiles.

Description

Melan A (MLANA), also known as melanoma antigen recognized by T cells 1, is a melanocyte differentiation protein that plays a key role in melanosome biogenesis and pigment production. It is selectively expressed in normal melanocytes and the majority of melanocytic tumors, making it one of the most widely used lineage-specific markers in diagnostic and research immunohistochemistry. In FFPE tissues, Melan A is detected as cytoplasmic HRP-DAB brown staining within melanocytes and melanoma cells, providing a distinct and interpretable pattern for identifying melanocytic differentiation. Melan A Antibody for IHC is therefore extensively used to evaluate melanocytic lesions and distinguish melanoma from morphologically similar non-melanocytic tumors.

Melan A antibody, also referred to as MLANA antibody or MART-1 antibody in the literature, recognizes a cytoplasmic protein with highly restricted expression in melanocytic cells. This Melan A Antibody for IHC is optimized for Tissue Microarray (TMA)-based immunohistochemistry, enabling high-throughput, standardized comparison of melanocytic marker expression across large panels of normal and cancer tissues. In normal tissue TMAs, staining is confined to melanocytes within the epidermis and related structures, while the vast majority of non-melanocytic tissues remain negative, producing a clean background that enhances specificity and interpretability.

In cancer tissue microarrays, Melan A expression is strongly and consistently observed in melanoma, where diffuse cytoplasmic staining highlights tumor cells of melanocytic origin. This pattern enables clear distinction between melanoma and carcinomas, sarcomas, and other non-melanocytic malignancies, as surrounding stromal and epithelial components remain negative. The ability to visualize melanocytic tumor cells with high contrast across TMA cores supports its use in comparative tumor profiling and lineage determination studies.

Tissue Microarray (TMA) analysis enables side-by-side evaluation of MLANA expression across hundreds of tissue cores under identical staining conditions, demonstrating highly reproducible staining in melanocytic tissues alongside minimal background in unrelated cell types. Clone MSVA-901M+ produces strong, well-defined cytoplasmic staining across TMA panels, supporting its use in large-scale immunohistochemistry studies and melanoma research. Observed staining patterns align with established MLANA biology and reference datasets such as the Human Protein Atlas.

This antibody targets Melan A in research applications requiring precise and interpretable immunohistochemical detection of melanocytic lineage markers, making it well suited for studies of melanoma, melanocyte biology, and tumor classification.

This antibody is part of the Melan-A antibody collection, where additional MLANA/MART-1 antibodies for various applications can be explored.

This antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1.Optimal dilution of the Melan A Antibody for IHC / MLANA Immunohistochemistry Antibody should be determined by the researcher.

2. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

Recombinant MART-1 protein was used as the immunogen for the MLANA/Melan A antibody.

Storage

MLANA/Melan A antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

MLANA antibody, Melan-A antibody, melanoma antigen antibody, melanocyte marker antibody, Melan A IHC antibody

Copyright © NSJ Bioreagents. All rights reserved.