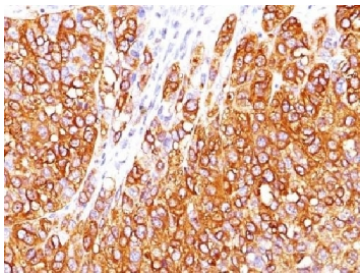
MART-1 Antibody M2-7C10 / Melan-A Monoclonal Antibody [clone M2-7C10] (V2116)

Catalog No.	Formulation	Size
V2116-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2116-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2116SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2116IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

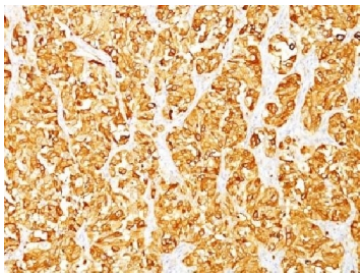
Citations (7)

Bulk quote request

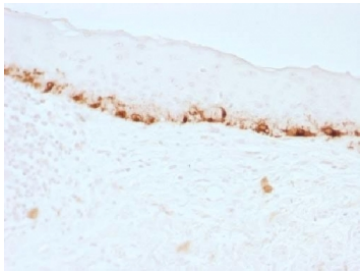
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, lambda
Clone Name	M2-7C10
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
Gene ID	2315
Localization	Cytoplasmic
Applications	Western blot: 2-4ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Prediluted IHC only format: incubate for 30 min at RT (1)
Limitations	This MART-1 Antibody M2-7C10 / Melan-A Monoclonal Antibody is available for research use only.



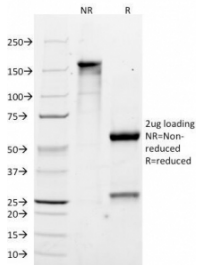
MART-1 Antibody M2-7C10 Staining in Human Melanoma by IHC. Immunohistochemistry staining of FFPE human melanoma with MART-1 Antibody (clone M2-7C10) shows strong brown immunoreactivity throughout a large population of melanoma cells. The labeling is predominantly cytoplasmic, with prominent peripheral and membranous-appearing accentuation visible in many tumor cells, while nuclei remain comparatively unstained. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min. The robust tumor-cell staining demonstrates detection of the melanocytic differentiation antigen using this Melan-A Monoclonal Antibody.



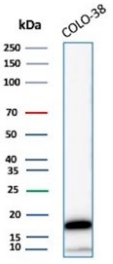
MART-1 Antibody M2-7C10 Staining in Human Melanoma Tissue by IHC. Immunohistochemistry staining of a second FFPE human melanoma specimen with MART-1 Antibody (clone M2-7C10) shows widespread brown cytoplasmic immunoreactivity across the melanoma cell population. Staining is heterogeneous in intensity but broadly distributed throughout the tumor, providing an additional melanoma specimen with a different tissue architecture from the preceding example. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min. The widespread melanocytic staining further demonstrates tissue detection using this Melan-A Monoclonal Antibody.



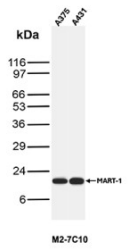
MART-1 Antibody M2-7C10 Staining of Melanocytes in Human Skin by IHC. Immunohistochemistry staining of FFPE human skin with MART-1 Antibody (clone M2-7C10) shows selective brown labeling of melanocytes positioned along the basal region of the epidermis, while most surrounding epidermal and dermal cells remain unstained. This restricted distribution is consistent with the melanocytic lineage-associated expression of MART-1 and provides a useful contrast to the extensive labeling observed in melanoma tissue. Heat-induced epitope retrieval was performed by boiling sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min. The selective staining demonstrates recognition of Melan-A in normal human skin.



MART-1 Antibody M2-7C10 Purity and Integrity by SDS-PAGE. SDS-PAGE analysis of purified, BSA-free MART-1 Antibody (clone M2-7C10) with a 2 ug loading shows intact antibody migrating at approximately 150-160 kDa under non-reducing conditions. Under reducing conditions, distinct immunoglobulin heavy and light chains are visible at approximately 50-55 kDa and 25 kDa, respectively. The expected migration of the intact immunoglobulin and separated heavy and light chains supports the integrity and purity of this Melan-A Monoclonal Antibody preparation.



MART-1 Antibody M2-7C10 Detection in Human COLO-38 Melanoma Cells by WB. Western blot testing of human COLO-38 melanoma cell lysate with MART-1 Antibody (clone M2-7C10) shows a strong, discrete band migrating just below the 20 kDa molecular weight marker, within the expected range for MART-1/Melan-A. The blot displays minimal additional reactivity, with the predominant signal corresponding to the target protein. This well-defined band demonstrates detection of MART-1 in human melanoma cells using this Melan-A Monoclonal Antibody.



MART-1 Antibody M2-7C10 Detection in A375 and A431 Human Cancer Cells by WB. Western blot testing of human A375 melanoma (lane 1) and A431 epidermoid carcinoma (lane 2) cell lysates with MART-1 Antibody (clone M2-7C10) shows strong, discrete bands migrating at approximately 18-20 kDa. The bands are similar in intensity and migrate at the expected molecular weight region for MART-1/Melan-A, with minimal additional reactivity visible in either lane. This clean detection in two human cell lysates further demonstrates recognition of the MLANA gene product using this Melan-A Monoclonal Antibody.

Description

MART-1 Antibody M2-7C10 recognizes MART-1, a melanocyte differentiation antigen encoded by the MLANA gene and also widely known as Melan-A. MART-1 was originally identified as a melanoma antigen recognized by cytotoxic T lymphocytes and has become an important protein for research involving melanocytes, melanocytic differentiation, and melanoma. The protein is associated with intracellular membranes, including melanosomes and the endoplasmic reticulum, and contributes to the biology of pigment-producing cells.

MART-1 expression is strongly associated with cells of melanocytic lineage. Within melanosomes, MART-1 is functionally connected with PMEL, also known as gp100, a structural protein involved in formation of the fibrillar matrix on which melanin is deposited. MART-1 contributes to the stability, trafficking, and maturation of PMEL, linking this melanocyte antigen with melanosome organization and pigmentation. Expression of MLANA is consequently studied as part of the transcriptional and cellular programs responsible for melanocyte identity and differentiation.

MART-1 is extensively investigated in melanoma biology, melanocyte differentiation, tumor immunology, and antigen-specific T-cell responses. Peptides derived from MART-1 can be presented by major histocompatibility complex molecules and recognized by cytotoxic T lymphocytes, making the protein an important model antigen for studying cellular immune responses to melanoma. Melan-A expression is also investigated alongside other melanocytic proteins, including PMEL, tyrosinase, and SOX10, when studying melanocytic differentiation and tumor biology.

Clone M2-7C10 is a mouse monoclonal antibody generated against recombinant human MART-1 protein. This Melan-A Monoclonal Antibody recognizes the MLANA gene product and provides a defined reagent for investigating MART-1 expression and melanocytic differentiation. Clone M2-7C10 has also been used in published research involving MART-1 and melanocytic biology. NSJ Bioreagents supplies this antibody for research use only.

A MART-1 Antibody can be used to investigate MLANA expression, melanocyte differentiation, melanosome biology, melanoma research, tumor immunology, and antigen-specific immune responses.

Explore our Melan-A Antibody / Melanocyte Lineage Marker clone A103 page for additional validation data and research applications involving melanoma biology, melanocytic tumor identification, and pigment cell differentiation pathways.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the MART-1 Antibody M2-7C10 / Melan-A Monoclonal Antibody to be titered up or down for optimal performance.

1. 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

Recombinant human MART-1 protein was used as the immunogen for this MART-1 Antibody M2-7C10.

Storage

Store the MART-1 Antibody M2-7C10 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Antigen LB39-AA, Antigen SK29-AA, Melanoma antigen recognized by T-cells 1, MLAN-A antibody, MLANA antibody, MART-1 antibody, Melan-A antibody

References (2)

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