P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 – Tel. (435) 755-9848 - Fax (435) 755-0015 - www.ScyTek.com

MART-1; Clone M2-7C10

Catalog Number	Format	Volume
A00115-0002	(Ready-To-Use)	2 ml
A00115-0007	(Ready-To-Use)	7 ml
A00115-0025	(Ready-To-Use)	25 ml
A00115-C	(Concentrate)	1 ml

Intended Use

For In-Vitro Diagnostic Use. This antibody is intended for the qualitative visualization of the anatomical elements listed in the Specificity section. It is intended to be used within an Immunohistochemistry (IHC) procedure on formalin-fixed paraffin-embedded (FFPE) human tissue followed by visualization by light microscopy.

Description

Titer/Working Dilution: Ready-to-Use: No further dilution required.
Concentrate: Suggested dilution is 1:100-200

Species: Mouse

Immunogen: Recombinant human MART-1 protein was used to generate the MART-1 antibody.

Clone: M2-7C10

Isotype: Mouse IgG2b, Kappa

Format: Ready-To-Use antibody has been pre-titered and quality controlled to work on formalin-fixed paraffin-embedded as well as acetone fixed cryostat tissue sections. No further titration is required.
Concentrate antibody is provided in a phosphate buffered saline containing 1% BSA.

Specificity: The clone M2-7C10 MART-1 antibody labels melanomas and other tumors showing melanocyte differentiation.

Background: MART-1 (Melanoma Antigen Recognized by T cells 1), also known as Melan-A, is an 18 kDa melanocyte differentiation antigen recognized by autologous cytotoxic T lymphocytes. MART-1 is expressed in melanosomes and the endoplasmic reticulum. MART-1 is the most widely used marker for identifying malignant melanoma, the most deadly form of skin cancer, and facilitating complete removal of the primary tumor (Campoli, 2012). In this regard, MART-1 is used both as a confirmatory marker for melanocyte differentiation in S100 (protein present in melanocytes) positive lesions and a primary marker to evaluate the extent of melanocyte tumors (Ohsie, 2012, Collins, 2012). MART-1 specific monoclonal antibodies have high sensitivity (75-92%) and specificity (95-100%) for melanoma (Campoli, 2012, Oshie et.al, 2012).

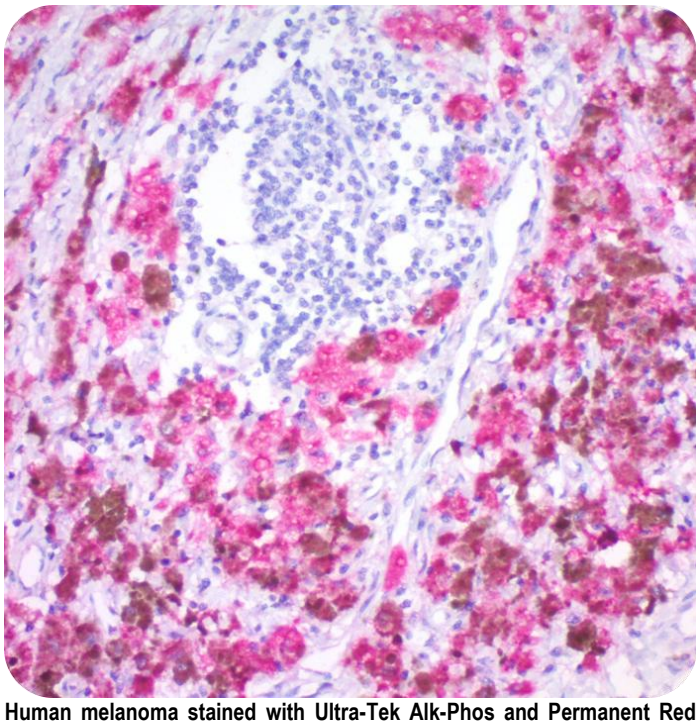
The exact epitope recognized by this MART-1 antibody has not been mapped. However, the MART-1 epitope recognized by this antibody appears to be different from that recognized by the M2-9E3 MART-1 antibody clone (Kawakami, 1997). Researchers often use more than one antibody against a given specificity to help follow up and validate results. Hence, it may be useful to use both the A00115 and A00116 antibodies in parallel to obtain additional information about MART-1 expression.

Species Reactivity: Human. Clone M2-7C10 does not react with mouse or rat.
Positive Control: Metastatic melanoma in lymph nodes
Cellular Localization: Cytoplasmic
Microbiological State: Nonsterile

Materials and Reagents Required but not Provided

1. Control tissue and reagents
2. Xylene, graded alcohols, and deionized/distilled water
3. Antibody Diluent.
4. IHC detection system. Suggested: ScyTek Cat# ABZ125 “CRF Anti-Polyvalent HRP Polymer” and ScyTek Cat# ACV500 “DAB Chromogen/Substrate Kit (High Contrast)”.
5. Wash buffer for rinses (ScyTek Cat# TBT500)
6. HIER Retrieval Solution
7. Hematoxylin counterstain and bluing reagent (ScyTek Cat# HMM500 and BRT500)
8. Mounting medium and coverslips

Note: ScyTek Laboratories has a wide range of IHC reagents and ancillaries that can be found at scytek.com.



Human melanoma stained with Ultra-Tek Alk-Phos and Permanent Red Chromogen.

Procedure

1. **Tissue Section Pretreatment (Highly Recommended):** Staining of formalin fixed paraffin embedded tissue sections is significantly enhanced by pretreatment with Tris-EDTA HIER Solution (10x) pH 9.0 (ScyTek catalog# TES500) or Citrate Plus (10x) HIER Solution (ScyTek catalog# CPL500)

Storage: 2° C 8° C

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2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.

3. **Visualization:** For maximum staining intensity we recommend the "UltraTek HRP Anti-Polyvalent Lab Pack" (ScyTek catalog# UHP125, see IFU for instructions) combined with the "DAB Chromogen/Substrate Bulk Pack (High Contrast)" (ScyTek catalog# ACV500, see IFU for instructions).

Storage and Stability

Do not Freeze. Store at 2-8°C. Return to 2-8° immediately after use. Do not use after expiration date printed on label. Verify visually that antibody has not been contaminated before use. Do not use if reagent becomes cloudy or precipitates.

Limitations

Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used. This data sheet's recommendations and procedures were validated using ScyTek IHC reagents and may not be suitable for other detection systems.

Precautions

1. Contains Sodium Azide as a preservative (0.09% w/v), do not ingest. Sodium Azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.
2. Do not pipette by mouth.
3. Avoid contact of reagents and specimens with skin and mucous membranes.
4. Avoid microbial contamination of reagents or increased nonspecific staining may occur.
5. The user must validate any procedures and recommendations that differ from this data sheet.
6. The SDS may be found at scytek.com

References

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3. Campoli etal. Mohs Micrographic Surgery for the Treatment of Cutaneous Melanoma. In: Mohs Micrographic Surgery. Nouri K (Editor) 211-223 (2012), DOI: 10.1007/978-1-4471-2152-7_18
4. Ohsie et al. Tissue-Based Protein Biomarkers in Melanoma: Immunohistochemistry: (A) Diagnosis. In Diagnostic and Prognostic Biomarkers and Therapeutic Targets in Melanoma Current Clinical Pathology, Murphy MJ (Editor). 159-176 (2012), 159-176, DOI: 10.1007/978-1-60761-433-3_12.
5. Collins etal. J Cutan Pathol 39:637-643 (2012).
6. Hoashi etal. JBC 380:14006-14016 (2005).
7. Mihic-Probst etal. PLosONE PLoS ONE 7: e33571 (2012). doi:10.1371/journal.pone.0033571.

Warranty

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Storage: 2° C  8° C

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