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
(Concentrate)

Availability/Contents:

Item #	Volume
A00115-C	1 ml

Description:

Species:	Mouse
Immunogen:	Recombinant human MART-1 protein was used to generate the MART-1 antibody.
Clone:	M2-7C10
Isotype:	Mouse IgG2b, Kappa
Concentration:	100µl/ml.
Format:	This 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 clone M2-7C10 MART-1 antibody labels melanomas and other tumors showing melanocyte differentiation, and is widely used for assessing melanomas (Campoli, 2012, Ohsie, 2012, Collins, 2012). Analysis of melanoma lesions with this antibody shows that there is significant heterogeneity of expression of MART-1 both as a percentage of cells and in intensity of expression (Marincola, 1996). The reactivity of the MART-1 antibody is not restricted to melanoma, and the antibody has also been shown to label some mesenchymal tumors and sarcomas (Campoli, 2012). The exact eptiope 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.
Titer/Working Dilution:	Immunohistochemistry: 1:100 - 1:200
Microbiological State:	This product is not sterile.

Storage: 2° C 8° C

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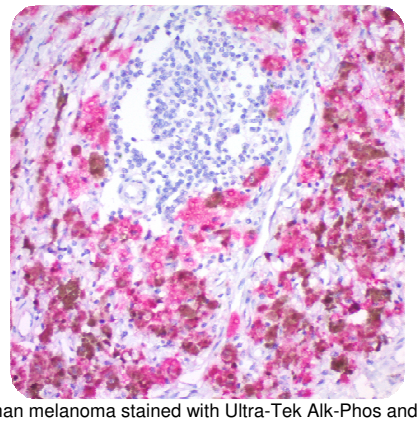
Uses/Limitations:

Not to be taken internally.
For Research Use Only.
This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.
Do not use if reagent becomes cloudy.
Do not use past expiration date.
Use caution when handling reagents.
Non-Sterile.

Ordering Information and Current Pricing at www.scytek.com



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

Procedure:

1. **Tissue Section Pretreatment:** Staining of formalin fixed, paraffin embedded tissue sections is enhanced by pretreatment with Citrate Plus (ScyTek catalog# CPL500) or Citrate Buffer (10x), pH 6.0 (ScyTek Catalog# CBB500, see IFU for instructions).

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).

Precautions:

Contains Sodium Azide as a preservative (0.09% w/v).
Do not pipette by mouth.
Avoid contact of reagents and specimens with skin and mucous membranes.
Avoid microbial contamination of reagents or increased nonspecific staining may occur.
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.

References:

1. Marincola FM etal. 19:192-205 J Immunother 19:192-205 (1996).
2. Kawakami Y etal. J Immunol Methods 202:13-25 (1997).
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.

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