

Melanoma; Pan

Catalog Number	Format	Volume
A00134-0002	(Ready-To-Use)	2 ml
A00134-0007	(Ready-To-Use)	7 ml
A00134-0025	(Ready-To-Use)	25 ml
A00134-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 1:125-250

Species:

Mouse

Immunogen:

BALB/C mice were injected with extract of pigmented melanoma metastases from lymph node.

Clone:

MART-1; Clone M2-7C10, MART-1; Clone M2- 9E3, Tyrosinase; Clone T311, Melanoma; HMB45.

Isotype:

Mouse IgG1

Mol. Wt. of Antigen:

100 kDa

Format:

Ready-To-Use antibody has been pre-titrated 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 buffer saline containing 1% BSA.

Specificity:

Melanoma; Pan is a broad spectrum marker for metastatic melanoma.

Background:

Melanomas are linked with the development of functional heterogeneity, thus shown to express multiple antigenic targets. Recently several antibodies have been developed which are known to distinguish phenotypic differentiation of all types of benign and malignant melanoma.

The MART-1 / Melan A - a protein of 18 kDa, known as MART-1 (Melanoma Antigen Recognized by T-cells 1) is recognized in a sub-cellular fraction in melanosomes. This antibody identifies melanomas and tumors showing melanocytic differentiation. Both HMB45 and MART-1 are co-expressed in the majority of melanomas. However, recent studies have shown that MART-1 is more sensitive marker than HMB45 when identifying metastatic melanomas.

Tyrosinase is a key enzyme involved in the initial stages of melanin biosynthesis. Some studies have distinctly elucidated Tyrosinase to be a more sensitive marker when compared to HMB45 and MART-1. Tyrosinase has also been reported to identify a higher percentage of desmoplastic melanomas than HMB45. Other studies have shown tyrosinase to be a more superior melanoma marker when compared to HMB45 as it does not cross react with other tumors or normal tissues.

HMB45 antibody is considered to be an identifier to the majority of melanomas hence it is most frequently used in clinical practice. HMB45 specifically recognizes a 100 kDa protein existing in pre-stage and early-stage melanosome and

melanomas. The expression of the HMB45 antigen designates active melanosome formation and consequently melanocytic differentiation. The HMB45 reactive antigen is present in cutaneous melanocytes, prenatal and infantile retinal pigment epithelium (RPE), and melanoma cells.

Tyrosinase and MART-1 are known to be co-expressed in the majority of melanomas. So far, studies have not shown cases where HMB45 was positive but negative for both MART-1 and Tyrosinase. Therefore the combination of HMB45, MART-1, and Tyrosinase make this cocktail more sensitive and also a valuable diagnostic tool for metastatic melanoma.

Species Reactivity: Human. Others not known.

Positive Control: Human Melanoma.

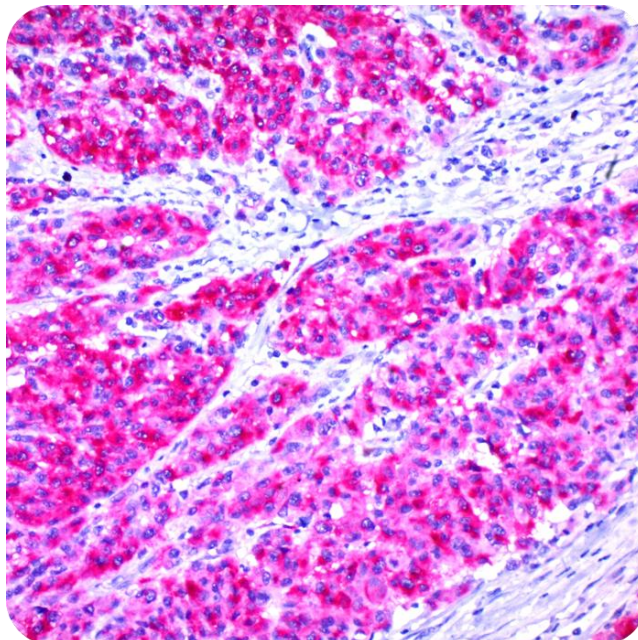
Cellular Localization: Cytoplasmic

Microbiological State: Nonsterile

Materials and Reagents Required but not Provided

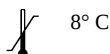
1. Control tissue and reagents
2. Xylene, graded alcohols, and deionized/distilled water
3. Antibody Diluent.
4. IHC detection system. Suggested: ScyTek Cat# ABZ125 "CRF Anti-Polyvalent HRP Polymer" and ScyTek Cat# ACV500 "DAB Chromogen/Substrate Kit (High Contrast)".
5. Wash buffer for rinses (ScyTek 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 scytex.com.



Human Melanoma stained with UltraTek Alk-Phos and Permanent Red Chromogen.

Storage: 2° C



8° C



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EC REP

Emergo Europe
Westervoortsedijk 60
6827 AT Arnhem, The Netherlands

Instructions For Use A00134-IFU-IVD

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Revision: 3

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(HMB-45) in benign and malignant melanocytic tumors. Virch Arch A Pathol Anat 1988;413 (1):17-24.

Procedure

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

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 "CRF Anti-Polyvalent HRP Polymer" (ScyTek catalog# ABZ125, 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 scytex.com

References

1. Skelton HG, Smith KJ, Barrett TL, Lupton GP, Graham JH. HMB-45 staining in benign and malignant melanocytic lesions. Amer J Dermatopathol 1991;13(6): 543-50.
2. Kapur RP, Bigler SA, Skelly M, Gown AM. Anti-melanoma monoclonal antibody HMB45 identifies an oncofetal glycoconjugate associated with immature melanosomes. J Histochem Cytochem 1992; 40(2):207-12.
3. Esclamado RM, Gown AM, Vogel AM. Unique proteins defined by monoclonal antibodies specific for human melanoma. Amer J Surg 1986;152(4): 376-85.
4. Gown AM, Vogel AM. Monoclonal antibodies to intermediate filament proteins of human cells: Unique and cross-reacting antibodies. J Cell Biol. 1982;95(2 Pt 1):414-24.
5. Colombiari R, Bonetti F, Zamboni G, Scarpa A, Marino F, Tomezzoli A, Capelli P, Menestrina F, Chilosi M, Fiore-Donati L. Distribution of melanoma specific antibody

Storage: 2° C



8° C



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