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

Melanoma; Pan
(Ready-To-Use)

Availability/Contents:

Item #	Volume
A00134-0002	2 ml
A00134-0007	7 ml
A00134-0025	25 ml

Description:

Species: Mouse

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

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

Isotype: Mouse IgG1

Format: This 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.

HBM45 antibody is considered to be an identifier to the majority of melanomas hence it is most frequently used in clinical practice. HBM45 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.

Positive Control: Human Melanoma.

Titer/Working dilution: No further dilution is required.

Cellular Localization: Cytoplasmic.

Microbiological State: This product is not sterile.

Storage: 2° C  8° C

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CE IVD

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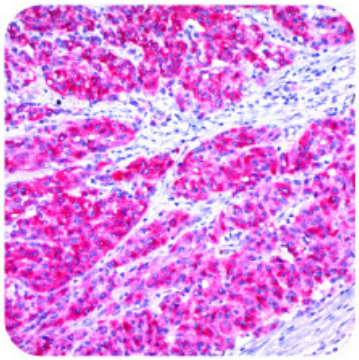
Uses/Limitations:

Not to be taken internally.
For In-vitro Diagnostic Use.
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.



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

Ordering Information and Current Pricing at www.scytek.com

Procedure:

1. **Tissue Section Pretreatment (Highly Recommended):** Staining of formalin fixed, paraffin embedded tissue sections is significantly enhanced by pretreatment with Citrate Plus (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 "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. 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. Colombari 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 (HMB-45) in benign and malignant melanocytic tumors. Virch Arch A Pathol Anat 1988;413 (1):17-24.

Warranty:

No products or "Instructions For Use (IFU)" are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products. 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.

Storage: 2° C – 8° C

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