

Product datasheet for AM32813PU-S

OriGene Technologies, Inc.

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MelanA (MLANA) Mouse Monoclonal Antibody [Clone ID: M2-9E3]

Product data:

Product Type: Primary Antibodies

Clone Name: M2-9E3

Applications: ELISA, FC, IF, IHC, IP, WB

Recommended Dilution: ELISA: Use BSA free Antibody for Coating.

Western Blot: 0.5-1 µg/ml.

Immunoprecipitaion: 0.5-1 μg/500 μg protein lysate.

Flow Cytometry: $0.5-1 \mu g/10^6$ cells. Immunofluorescence: $1-2 \mu g/ml$.

Immunohistochemistry on Frozen and Formalin-Fixed Paraffin Sections: 0.5-1 µg/ml for

30 minutes at RT.

Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10 mM

citrate buffer, pH 6.0 for 10-20 min followed by cooling at RT for 20 min. *Positive Control:* SK-MEL-13 and SK-MEL-19 Melanoma cell lines; Melanomas.

Reactivity: Human, Mouse, Rat

Host: Mouse Isotype: IgG2b

Clonality: Monoclonal

Immunogen: Recombinant Human MART-1 protein.



Specificity:

This antibody recognizes a protein doublet of 20-22kDa, identified as MART-1 (Melanoma Antigen Recognized by T cells 1) or Melan-A.

It is also a useful positive-marker for angiomyolipomas. It does not stain tumor cells of epithelial, lymphoid, glial, or mesenchymal origin.

The clone *M2-9E3* MART-1 antibody labels melanomas and other tumors showing melanocyte differentiation (Kawakami et al, 1997). The antibody has been highly characterized, including by Immunohistochemistry, Immunofluorescence, Western blot and Immunoprecipitation, and the specificity of the antibody for Melan-A has also been validated by Melan-A siRNA knockdown (Hoashi et al, 2005). Additionally, the Melan-A antibody has been used in combination with other melanocyte differentiation markers to help confirm or exclude melanocyte histogenesis (Collins, 2012; Mihic-Probst, 2012). It is important to note that Melan-A expression is not restricted to melanoma, and may also be detectable on some other type of tumors (reviewed in Campoli, 2012).

The exact eptiope recognized by the Melan-A antibody has not been mapped. However, the Melan-A epitope recognized by this antibody appears to be different than that recognized by the MART-1 antibody clone *M2-7C10* (Cat.-No AM32812PU) (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 Cat.-No AM32812PU and Cat.-No AM32813PU antibodies in parallel to obtain additional information about Melan-A expression.

Cellular Localization: Cytoplasmic.

Formulation: 10mM PBS

State: Purified

State: Liquid purified IgG fraction from Bioreactor Concentrate

Stabilizer: 0.05% BSA

Preservative: 0.05% Sodium Azide

Concentration: lot specific

Purification: Affinity Chromatography on Protein A/G

Conjugation: Unconjugated

Storage: Store undiluted at 2-8°C.

Stability: Shelf life: one year from despatch.

Predicted Protein Size: 20-22 kDa (doublet)

Gene Name: melan-A

Database Link: Entrez Gene 2315 Human

Q16655



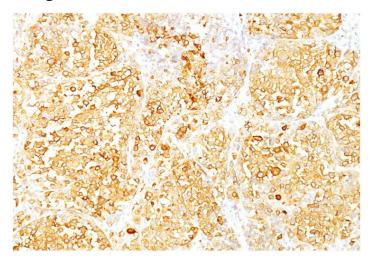
Background:

Melan-A also known as MART-1 (Melanoma Antigen Recognize by T cells 1), is an 18 kDa melanocyte differentiation antigen recognized by T cells. Melan-A is expressed in melanosomes and the endoplasmic reticulum. Melan-A is the most widely used marker for identifying malignant melanoma (Campoli, 2012), a highly aggressive and deadly form of skin cancer which may be curable when caught early. Melan-A specific monoclonal antibodies have utility for evaluating suspected melanocyte lesions by immunohistochemistry as they have both high sensitivity (75-92%) and specificity (95-100%) for melanoma (Campoli, 2012, Oshie, 2012).

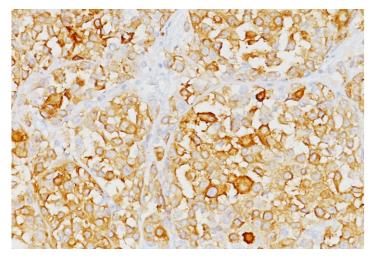
Synonyms:

Melan-A protein, MLANA, Antigen SK29-AA, LB39-AA, MelanA, MART1

Product images:

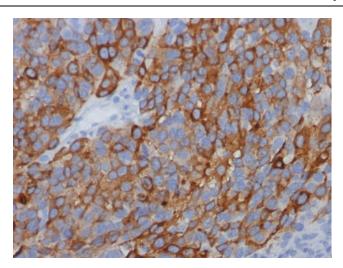


Formalin-Fixed, Paraffin-Embedded Human melanoma stained with MART-1 Antibody No (Clone M2-9E2). Note cytoplasmic staining of cells.



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