

# MART-1 / Melan-A / MLANA (Melanoma Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone SPM555] Catalog # AH10458

# **Product Information**

Application	WB, IF, FC, IHC-P
Primary Accession	<u>Q16655</u>
Other Accession	<u>2315, 154069</u>
Reactivity	Human, Mouse, Rat, Dog
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	SPM555
Calculated MW	13157

### **Additional Information**

Gene ID	2315
Other Names	Melanoma antigen recognized by T-cells 1, MART-1, Antigen LB39-AA, Antigen SK29-AA, Protein Melan-A, MLANA, MART1
Application Note	WB~~1:1000 IF~~1:50~200 FC~~1:10~50 IHC-P~~N/A
Format	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	MART-1 / Melan-A / MLANA (Melanoma Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

#### **Protein Information**

Name	MLANA
Synonyms	MART1
Function	Involved in melanosome biogenesis by ensuring the stability of GPR143. Plays a vital role in the expression, stability, trafficking, and processing of melanocyte protein PMEL, which is critical to the formation of stage II melanosomes.

Cellular Location	Endoplasmic reticulum membrane; Single-pass type III membrane protein. Golgi apparatus. Golgi apparatus, trans-Golgi network membrane. Melanosome. Note=Also found in small vesicles and tubules dispersed over the entire cytoplasm. A small fraction of the protein is inserted into the membrane in an inverted orientation Inversion of membrane topology results in the relocalization of the protein from a predominant Golgi/post-Golgi area to the endoplasmic reticulum. Melanoma cells expressing the protein with an inverted membrane topology are more effectively recognized by specific cytolytic T-lymphocytes than those expressing the protein in its native membrane orientation
Tissue Location	Expression is restricted to melanoma and melanocyte cell lines and retina

# Background

This antibody recognizes a protein doublet of 20-22kDa, identified as MART-1 (Melanoma Antigen Recognized by T cells 1) or Melan-A. MART-1 is a newly identified melanocyte differentiation antigen recognized by autologous cytotoxic T lymphocytes. Seven other melanoma associated antigens recognized by autologous cytotoxic T cells include MAGE-1, MAGE-3, tyrosinase, gp100, gp75, BAGE-1, and GAGE-1. Subcellular fractionation shows that MART-1 is present in melanosomes and endoplasmic reticulum. This MAb labels melanomas and other tumors showing melanocytic differentiation. It is also a useful positive-marker for angiomyolipomas. It does not stain tumor cells of epithelial, lymphoid, glial, or mesenchymal origin.

## References

Chen Y-T, et. al. Proc Natl Acad Sci, USA, 1996, 93:5915-19

#### Images



Formalin-fixed, paraffin-embedded human Melanoma stained with Melan-A Monoclonal Antibody (SPM555).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.