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# gp100 / Melanosome / PMEL17 / SILV (Melanoma Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone HMB45 + PMEL/783 ]
Catalog # AH12312

## Product Information

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| **Application** | IHC, IF, FC |
| **Primary Accession** | P40967 |
| **Other Accession** | 6490, 95972 |
| **Reactivity** | Human |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | Mouse / IgG's |
| **Clone Names** | HMB45 + PMEL/783 |
| **Calculated MW** | 70255 |

## Additional Information

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| **Gene ID** | 6490 |
| **Other Names** | Melanocyte protein PMEL, ME20-M, ME20M, Melanocyte protein Pmel 17, Melanocytes lineage-specific antigen GP100, Melanoma-associated ME20 antigen, P1, P100, Premelanosome protein, Silver locus protein homolog, M-alpha, 95 kDa melanocyte-specific secreted glycoprotein, P26, Secreted melanoma-associated ME20 antigen, ME20-S, ME20S, M-beta, PMEL, D12S53E, PMEL17, SILV |
| **Application Note** | IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50 |
| **Storage** | Store at 2 to 8°C.Antibody is stable for 24 months. |
| **Precautions** | gp100 / Melanosome / PMEL17 / SILV (Melanoma Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | PMEL |
| **Synonyms** | D12S53E, PMEL17, SILV |
| **Function** | Forms physiological amyloids that play a central role in melanosome morphogenesis and pigmentation. The maturation of unpigmented premelanosomes from stage I to II is marked by assembly of processed amyloidogenic fragments into parallel fibrillar sheets, which elongate the vesicle into a striated ellipsoidal shape. In pigmented stage III and IV |

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| | melanosomes, the amyloid matrix serves as a platform where eumelanin precursors accumulate at high local concentrations for pigment formation. May prevent pigmentation-associated toxicity by sequestering toxic reaction intermediates of eumelanin biosynthesis pathway. |
| **Cellular Location** | Endoplasmic reticulum membrane; Single-pass type I membrane protein. Golgi apparatus, cis-Golgi network membrane; Single-pass type I membrane protein. Endosome, multivesicular body. Melanosome Extracellular vesicle. Secreted. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:17081065) Localizes predominantly to intralumenal vesicles (ILVs) within multivesicular bodies. Associates with ILVs found within the lumen of premelanosomes and melanosomes and particularly in compartments that serve as precursors to the striated stage II premelanosomes (PubMed:11694580, PubMed:12643545). Sorted to stage I melanosomes following its processing in the ER and cis-Golgi (PubMed:15096515) Transiently expressed at the cell surface before targeting to early melanosomes (PubMed:16760433, PubMed:30988362). Colocalizes with BACE2 in stage I and II melanosomes (PubMed:23754390). Colocalizes with CD63 and APOE at exosomes and in intraluminal vesicles within multivesicular endosomes (PubMed:21962903, PubMed:26387950) |
| **Tissue Location** | Normally expressed at low levels in quiescent adult melanocytes but overexpressed by proliferating neonatal melanocytes and during tumor growth. Overexpressed in melanomas. Some expression was found in dysplastic nevi. |

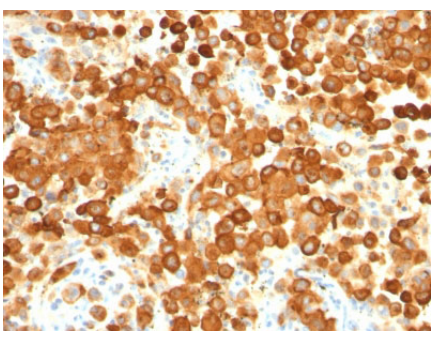
## Background

By immunohistochemistry, it specifically recognizes a protein in melanocytes and melanomas. This MAb reacts with junctional and blue nevus cells and variably with fetal and neonatal melanocytes. Intradermal nevi, normal adult melanocytes, and non-melanocytic cells are negative. It does not stain tumor cells of epithelial, lymphoid, glial, or mesenchymal origin. Metastatic amelanotic melanoma can often be confused with a variety of poorly differentiated carcinomas, large cell lymphomas, and sarcomas using H & E stains alone. It is also difficult to differentiate melanoma from spindle cell carcinomas and various types of mesenchymal neoplasms. This MAb stains fetal and neonatal melanocytes, junctional and blue nevus cells, and malignant melanoma. This MAb also stains Angiomyolipoma (PEComa).

## References

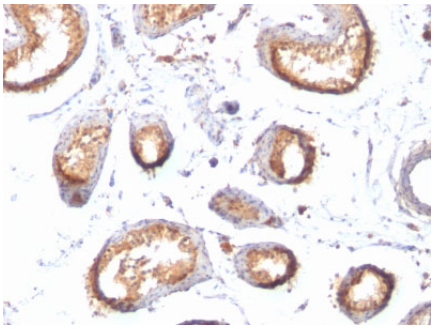
Gown AM, et. al. American Journal of Pathology, 1986, 123(2):195-203

## Images



Formalin-fixed, paraffin-embedded human Melanoma stained with gp100 / Melanosome Monoclonal Antibody (HMB45 + PMEL/783).

Formalin-fixed, paraffin-embedded human Testis stained with gp100 / Melanosome Monoclonal Antibody (HMB45



+ PMEL/783).

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