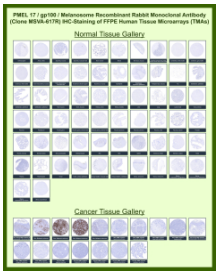
Gp100 Antibody for IHC / PMEL Melanocyte Lineage Marker [clone MSVA-617R] (V6111)

Catalog No.	Formulation	Size
V6111-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6111-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-617R
UniProt	P40967
Localization	Endoplasmic reticulum membrane, Endosome, Golgi apparatus, Melanosome, Multivesicular body, Secreted
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This gp100 Melanoma Marker/PMEL antibody is available for research use only.



gp100 Antibody for IHC / PMEL Melanocyte Lineage Marker (clone MSVA-617R). Immunohistochemistry analysis of a human tissue microarray (TMA) containing multiple normal and cancer tissues stained with gp100 Antibody for IHC / PMEL Melanocyte Lineage Marker clone MSVA-617R. Strong HRP-DAB brown cytoplasmic staining is observed in melanocytic cells and melanoma tissues, consistent with expression of Premelanosome protein PMEL, also known as gp100. Most non-melanocytic tissues within the normal tissue microarray panel show little or no staining, while melanoma samples demonstrate strong positive staining in tumor cells. The observed immunohistochemistry staining patterns across the TMA are consistent with melanocyte lineage-specific expression and align with reported PMEL expression data in the Human Protein Atlas.

Description

Premelanosome protein (PMEL) is a melanocyte lineage-associated glycoprotein encoded by the PMEL gene and widely known in the literature as gp100 or Pmel17. This melanosome-associated protein is expressed in melanocytes and

melanocytic tumors and serves as a well-established melanocyte lineage marker in dermatopathology. gp100 Antibody for IHC / PMEL Melanocyte Lineage Marker (clone MSVA-617R) is designed for immunohistochemistry detection of melanocytic cells in formalin-fixed paraffin-embedded tissue sections. In immunohistochemistry studies, gp100 staining highlights melanocytes and melanoma tumor cells, supporting evaluation of melanocytic differentiation in tissue specimens.

Immunohistochemistry analysis of PMEL typically demonstrates cytoplasmic staining within melanocytes located along the basal layer of the epidermis in normal skin. In melanoma tissue, gp100 immunohistochemistry staining is commonly observed in tumor cells forming nests or sheets within the lesion. Because gp100 expression is largely restricted to melanocytic lineage cells, gp100 Antibody for IHC is frequently used in melanoma pathology to help identify melanocytic tumors and distinguish melanoma from non-melanocytic malignancies in tissue sections.

Large-scale protein microarray screening of clone MSVA-617R evaluated antibody binding across thousands of human proteins and demonstrated selective recognition of PMEL relative to other proteins present on the array. Protein microarray specificity analysis therefore supports the selectivity of gp100 Antibody for IHC clone MSVA-617R for the intended PMEL target. Such specificity screening provides useful experimental evidence supporting antibody selectivity across a broad proteomic background.

Immunohistochemistry analysis using human tissue microarray (TMA) panels containing multiple normal and cancer tissues further demonstrates the melanocyte lineage specificity of gp100 staining. In tissue microarray studies, strong cytoplasmic staining is observed in melanoma cells and normal melanocytes, whereas most non-melanocytic tissues show little or no staining. Tissue microarray immunohistochemistry therefore reinforces the value of PMEL as a melanocyte lineage marker widely used in melanoma research and diagnostic pathology investigations.

gp100 Antibody for IHC / PMEL Melanocyte Lineage Marker clone MSVA-617R detects the gp100 protein in melanocytes and melanoma cells and supports investigation of melanocytic lineage markers in tissue specimens. The combination of immunohistochemistry staining patterns observed in tissue microarray studies together with protein microarray specificity data supports the use of this antibody for studies examining melanocyte biology, melanoma tumor tissues, and melanocytic differentiation in histological samples.

Application Notes

1. Optimal dilution of the gp100 Melanoma Marker/PMEL antibody should be determined by the researcher.

2. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

A recombinant fragment (around amino acids 376-502) of human SILV protein (exact sequence is proprietary) was used as the immunogen for the gp100 Antibody for IHC/PMEL antibody.

Storage

gp100 Melanoma Marker/PMEL antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

PMEL antibody, Premelanosome protein antibody, Pmel17 antibody, Melanosome structural protein antibody