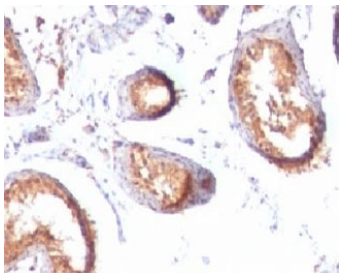
PMEL17 Antibody for WB / gp100 Western Blot Antibody [clone MSSG95] (V7147)

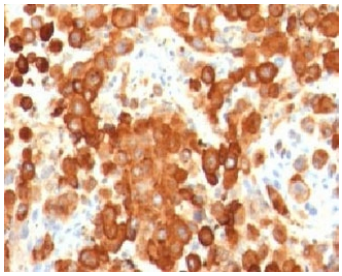
Catalog No.	Formulation	Size
V7147-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7147-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7147SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7147IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

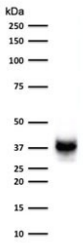
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	MSSG95
Purity	Protein G affinity chromatography
UniProt	P40967
Localization	Cytoplasmic
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT (1) Prediluted IHC only format: incubate for 30 min at RT (2)
Limitations	This PMEL17 antibody is available for research use only.



IHC testing of FFPE human testis tissue with PMEL17 antibody (clone MSSG95). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



IHC testing of human melanoma with PMEL17 antibody (clone MSSG95). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



PMEL17 Antibody for WB (clone MSSG95). Western blot analysis of human COLO-38 melanoma cell lysate using PMEL17 Antibody for WB clone MSSG95. Lane 1: human COLO-38 cell lysate. A band is detected at approximately 34-38 kDa, consistent with processed fragments of Premelanosome protein PMEL, also known as gp100. PMEL is synthesized as an approximately 100 kDa glycosylated precursor that undergoes proteolytic cleavage to generate an approximately 60-64 kDa M-alpha fragment and an approximately 26 kDa M-beta fragment. The M-alpha fragment is further processed into approximately 34-38 kDa and approximately 26 kDa fragments that assemble into the fibrillar matrix of developing melanosomes in melanocytic cells.

Description

Premelanosome protein (PMEL) is a melanocyte lineage-associated glycoprotein encoded by the PMEL gene that plays an essential role in melanosome biogenesis and pigment granule formation. The protein is widely known in the literature as gp100 or Pmel17 and functions as a structural component of developing melanosomes where fibrillar matrices are formed to support melanin deposition. PMEL17 Antibody for WB (clone MSSG95) recognizes this melanosome-associated protein and is designed for studies examining gp100 expression by western blot. The protein is frequently referred to in the literature as gp100, Pmel17, or premelanosome protein and is widely used as a melanocytic lineage marker in melanoma and pigment cell research. In western blot studies, PMEL is synthesized as a glycosylated precursor that undergoes proteolytic processing to generate fragments that participate in formation of the fibrillar scaffold within melanosomes.

The gp100 protein functions during the early stages of melanosome development where it undergoes a series of proteolytic processing events that generate structural fragments responsible for assembling the internal matrix of premelanosomes. These fragments form amyloid-like fibrils that act as a scaffold for the deposition of eumelanin and pheomelanin pigments during melanogenesis. Proper formation of these fibrils is critical for melanosome maturation and pigment production. Because PMEL processing generates several distinct fragments, western blot analysis frequently detects multiple bands corresponding to precursor, glycosylated, and cleaved protein species.

Expression of PMEL is largely restricted to melanocytes and melanocytic tumors, making gp100 one of the most widely studied melanocyte lineage markers in melanoma biology. Researchers often examine gp100 alongside other melanocyte-associated proteins such as Melan-A, tyrosinase, and MITF when investigating melanocytic differentiation and melanoma tumors. Detection of gp100 protein species by western blot therefore provides useful molecular information about melanocyte lineage and melanosome-associated protein processing.

The defining differentiator for this reagent is its optimization for western blot detection of gp100 protein species. PMEL17 Antibody for WB clone MSSG95 supports analysis of PMEL-derived bands that arise from precursor processing and proteolytic cleavage events associated with melanosome formation. Western blot detection of PMEL can reveal the presence of precursor forms, glycosylated species, and processed fragments that contribute to the fibrillar matrix of melanosomes. This western blot-focused design makes clone MSSG95 particularly useful for researchers studying gp100 protein processing, melanocyte biology, and melanoma-associated pathways where PMEL band patterns provide important experimental insight.

Application Notes

Titering of the PMEL17 antibody may be required for optimal performance.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Recombinant human protein was used as the immunogen for the PMEL17 Antibody for WB.

Storage

Store the PMEL17 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

gp100 antibody, Premelanosome protein antibody, Pmel17 antibody, Melanosome structural protein antibody

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