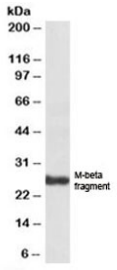
PMEL17 Antibody Goat Polyclonal / gp100 Antibody (R33299)

Catalog No.	Formulation	Size
R33299-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	6490
Applications	Western blot: 1-3ug/ml ELISA (peptide) LOD: 1:128000
Limitations	This PMEL17 antibody is available for research use only.



PMEL17 Antibody Goat Polyclonal. Western blot analysis of human skin lysate using PMEL17 Antibody Goat Polyclonal. A band is detected at approximately 26 kDa, consistent with the M-beta fragment derived from proteolytic processing of Premelanosome protein PMEL, also known as gp100. PMEL is synthesized as an approximately 70 kDa precursor that can appear near approximately 100 kDa when glycosylated and is subsequently cleaved into multiple fragments including the approximately 26 kDa M-beta fragment that contributes to formation of the fibrillar matrix within melanosomes in melanocytic cells.

Description

Premelanosome protein (PMEL) is a melanocyte lineage-associated glycoprotein encoded by the PMEL gene that functions as a key structural component of developing melanosomes where melanin deposition occurs. The protein is widely known in the literature as gp100 or Pmel17 and plays an essential role in melanosome maturation by forming fibrillar matrices that support pigment polymerization. PMEL17 Antibody Goat Polyclonal recognizes this melanocyte-

associated protein and is used to study gp100 expression in melanocytes and melanoma cells. The protein is frequently referred to as gp100, Pmel17, or premelanosome protein in the scientific literature 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 contribute to formation of the fibrillar scaffold within melanosomes.

The gp100 protein participates in the early stages of melanosome development where it undergoes proteolytic cleavage and structural rearrangement that generates amyloid-like fibrils. These fibrils form the internal matrix of premelanosomes and provide a scaffold upon which eumelanin and pheomelanin pigments accumulate during melanogenesis. Proper organization of this fibrillar network is critical for normal melanosome structure and efficient pigment synthesis. Within melanocytes and melanoma cells, gp100 localizes primarily to premelanosomes and early stage melanosomes involved in pigment granule maturation.

Expression of PMEL is largely restricted to melanocytes, retinal pigment epithelial cells, and melanocytic tumors, making gp100 one of the most widely studied melanocyte lineage markers in melanoma biology. Researchers frequently evaluate gp100 together with other melanocytic proteins such as Melan-A, tyrosinase, and MITF when characterizing melanocyte differentiation and melanoma tumors. Because melanomas can display variable expression of lineage markers, antibodies targeting PMEL provide important complementary information when examining melanocytic lesions and melanoma metastases.

The defining differentiator for this reagent is its Goat Polyclonal antibody format, which recognizes multiple epitopes across the PMEL protein. A Goat Polyclonal PMEL17 antibody can therefore detect gp100 protein species present within melanocytes and melanoma cells and support investigation of melanosome-associated pathways. The Goat Polyclonal format provides an additional antibody option for researchers studying melanocyte biology, melanosome structure, and melanoma-associated proteins in experimental systems where gp100 detection is required.

Application Notes

Optimal dilution of the PMEL17 Antibody Goat Polyclonal should be determined by the researcher.

Immunogen

Amino acids CPIGENSPLLSGQQ were used as the immunogen for this PMEL17 Antibody Goat Polyclonal.

Storage

Aliquot and store the PMEL17 antibody at -20oC.

Alternate Names

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

References (1)

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