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Goat Anti-Silver homologue / Pmel 17 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1992a

Specification

Goat Anti-Silver homologue / Pmel 17 Antibody - Product Information

Application	**WB, IF**
Primary Accession	P40967
Other Accession	NP_008859, 6490, 20431 (mouse), 362818 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**70255**

Goat Anti-Silver homologue / Pmel 17 Antibody - Additional Information

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

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-Silver homologue / Pmel 17 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-Silver homologue / Pmel 17 Antibody - Protein Information

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 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.

Goat Anti-Silver homologue / Pmel 17 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-Silver homologue / Pmel 17 Antibody - Images

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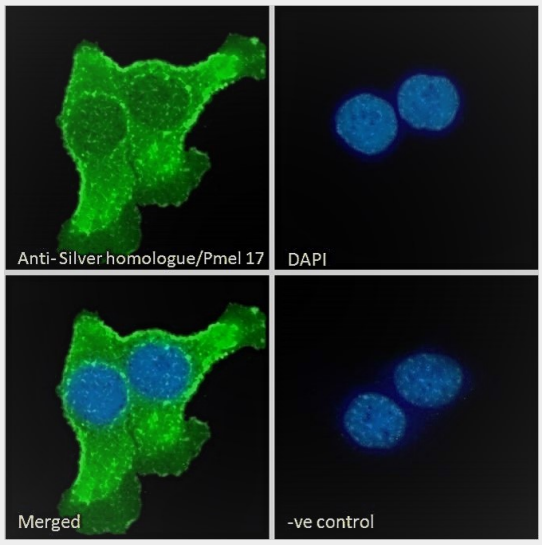
EB07296 (1µg/ml) staining of Mouse Skin lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.



EB07296 Immunofluorescence analysis of paraformaldehyde fixed A431 cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing membrane and cytoplasmic staining. The nuclear sta

Goat Anti-Silver homologue / Pmel 17 Antibody - References

Endoplasmic reticulum export, subcellular distribution, and fibril formation by Pmel17 require an intact N-terminal domain junction. Leonhardt RM, et al. J Biol Chem, 2010 May 21. PMID 20231267.
The secreted form of a melanocyte membrane-bound glycoprotein (Pmel17/gp100) is released by ectodomain shedding. Hoashi T, et al. FASEB J, 2010 Mar. PMID 19884326.
N-terminal domains elicit formation of functional Pmel17 amyloid fibrils. Watt B, et al. J Biol Chem, 2009 Dec 18. PMID 19840945.
The repeat domain of the melanosome fibril protein Pmel17 forms the amyloid core promoting melanin synthesis. McGlinchey RP, et al. Proc Natl Acad Sci U S A, 2009 Aug 18. PMID 19666488.
Formation of Pmel17 amyloid is regulated by juxtamembrane metalloproteinase cleavage, and the resulting C-terminal fragment is a substrate for gamma-secretase. Kummer MP, et al. J Biol Chem, 2009 Jan 23. PMID 19047044.