abcam

Product datasheet

Anti-Melanoma gp100 antibody ab52058

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Overview

Product name Anti-Melanoma gp100 antibody

Description Goat polyclonal to Melanoma gp100

Host species Goat

Tested applications Suitable for: WB

Species reactivity Reacts with: Human

Predicted to work with: Mouse, Rat, Cow, Dog, Pig

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Immunogen Synthetic peptide:

CPIGENSPLLSGQQ

, corresponding to C terminal amino acids 647-660 of Human Melanoma gp100

Run BLAST with

Run BLAST with

Positive control Human skin lysate

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

Properties

Form Liquid

Storage instructions Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw

cycles.

Storage buffer pH: 7.30

Preservative: 0.02% Sodium azide

Constituents: 0.5% BSA, Tris buffered saline

Purity Immunogen affinity purified

Purification notes Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity

chromatography using the immunizing peptide.

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Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee

Our $\underline{\textbf{Abpromise guarantee}}$ covers the use of ab52058 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆ (1)	Use a concentration of 1 - 3 µg/ml. Detects a band of approximately 26 kDa (predicted molecular weight: 70 kDa). Approx 26kDa band observed in Human Skin lysates, corresponding to the M-beta fragment of the precursor protein (Leonhardt et al, Mol Biol Cell. 2013 Apr;24(7):964-81.PMID: 23389629). Calculated MW of 70.3kDa according to NP_008859.1. Primary incubation was 1 hour.

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Function

Plays a central role in the biogenesis of melanosomes. Involved in the maturation of melanosomes from stage I to II. The transition from stage I melanosomes to stage II melanosomes involves an elongation of the vesicle, and the appearance within of distinct fibrillar structures. Release of the soluble form, ME20-S, could protect tumor cells from antibody mediated immunity.

Tissue specificity

Preferentially expressed in melanomas. Some expression was found in dysplastic nevi. Not found in normal tissues nor in carcinomas. Normally expressed at low levels in quiescent adult melanocytes but overexpressed by proliferating neonatal melanocytes and during tumor growth.

Sequence similarities

Belongs to the PMEL/NMB family.

Contains 1 PKD domain.

Domain

The RPT domain is essential for the generation of the fibrillar matrix of melanosomes. The lumenal domain is necessary for correct processing and trafficking to melanosomes.

Post-translational modifications

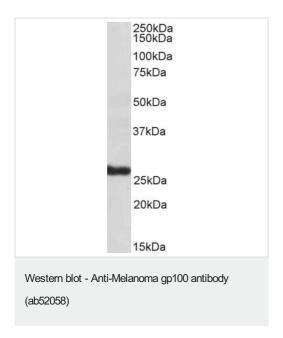
A small amount of P1/P100 (major form) undergoes glycosylation to yield P2/P120 (minor form). P2 is cleaved by a furin-like proprotein convertase (PC) in a pH-dependent manner in a post-Golgi, prelysosomal compartment into two disulfide-linked subunits: a large lumenal subunit, M-alpha/ME20-S, and an integral membrane subunit, M-beta. Despite cleavage, only a small fraction of M-alpha is secreted, whereas most M-alpha and M-beta remain associated with each other intracellularly. M-alpha is further processed to M-alpha N and M-alpha C. M-alpha C further undergoes processing to yield M-alpha C1 and M-alpha C3 (M-alpha C2 in the case of PMEL17-is or PMEL17-ls). Formation of intralumenal fibrils in the melanosomes requires the formation of M-alpha that becomes incorporated into the fibrils. Stage II melanosomes harbor only Golgimodified Pmel17 fragments that are derived from M-alpha and that bear sialylated O-linked oligosaccharides.

N-glycosylated. O-glycosylated; contains sialic acid.

Cellular localization

Secreted and Endoplasmic reticulum membrane. Golgi apparatus. Melanosome. Endosome > multivesicular body. Identified by mass spectrometry in melanosome fractions from stage I to stage IV. 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.

Images



Anti-Melanoma gp100 antibody (ab52058) at 1 μ g/ml + Human Skin lysate at 35 μ g

Predicted band size: 70 kDa

Additional bands at: 26 kDa (possible immature (unprocessed))

Primary incubation was 1 hour. Detected by chemiluminescence. The 26kDa band observed in Human Skin lysate corresponds to the precusor protein M-beta fragment (Leonhardt et al, Mol Biol Cell. 2013 Apr;24(7):964-81.PMID: 23389629).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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