Product datasheet

Anti-Melanoma gp100 antibody ab52058

Overview

Product name  Anti-Melanoma gp100 antibody
Description  Goat polyclonal to Melanoma gp100
Host species  Goat
Tested applications  Suitable for: WB, ELISA
Species reactivity  Reacts with: Human
Predicted to work with: Mouse, Rat, Cow, Dog, Pig
Immunogen  Synthetic peptide: CPIGENSPLLSGQQ
Positive control  Human skin lysate

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.
Clonality  Polyclonal
Isotype  IgG

Applications

Our 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.
### 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 Golgi-modified Pmel17 fragments that are derived from M-alpha and that bear sialylated O-linked oligosaccharides.

### 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 intraluminal 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.

### Application | Abreviews | Notes
--- | --- | ---
WB | ★★★ | 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.

ELISA | 1/128000. |

### Target
Anti-Melanoma gp100 antibody (ab52058) at 1 µg/ml + Human Skin lysate at 35 µg

**Predicted band size:** 70 kDa

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

Primary incubation was 1 hour. Detected by chemiluminescence. The 26 kDa band observed in Human Skin lysate corresponds to the precursor 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"

**Our Abpromise to you: Quality guaranteed and expert technical support**

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit [https://www.abcam.com/abpromise](https://www.abcam.com/abpromise) or contact our technical team.

**Terms and conditions**

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors