abcam

ab51061

Anti-MelanA antibody [EP1422Y]

Anti-MelanA antibody [EP1422Y] (ab51061) is a rabbit monoclonal antibody detecting MelanA in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF**. Suitable for **Human**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 20 publications
- Trusted since 2007

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP1422Y
Purification technique	Affinity purification Protein A
Dissociation constant	1.27 x 10^{-9} M
Concentration	1.186 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/1000
Notes	The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

WB

Tested

Species	Human
Dilution info	1/20000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/1000
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information MLANA

Function	Involved in melanosome biogenesis by ensuring the stability of GPR143. Plays a vital role in the expression, stability, trafficking, and processing of melanocyte protein PMEL, which is critical to the formation of stage II melanosomes.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-MelanA antibody [EP1422Y] (ab51061) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

What is the molecular weight of MelanA?
Anti-MelanA [EP1422Y] (ab51061) specifically detects a band for MelanA (UniProt: Q16655) at a molecular weight of 13kDa.

Trusted by the scientific community
Anti-MelanA [EP1422Y] (ab51061) was first used in a scientific publication in 2007 and has been cited over 20 times in peer-reviewed journals.

Other related products
We have a range of other formats of antibody clone [EP1422Y] also available for your convenience: ab51061, Carrier free - ab170090, Carrier free - ab271839, Alexa Fluor® 488 - ab279668, Alexa Fluor® 647 - ab281851, Alexa Fluor® 594 - ab281852, Alexa Fluor® 555 - ab282460, PE - ab303098, APC - ab303099, HRP - ab303100, Alkaline Phosphatase - ab308662, Alexa Fluor® 568 - ab312358, Alexa Fluor® 750 - ab321641

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

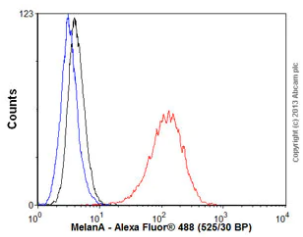
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

---

8 product images

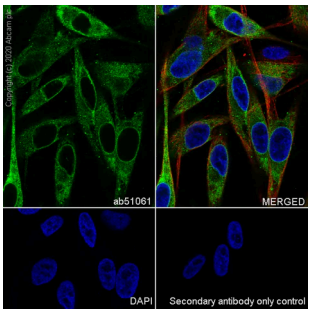


Flow Cytometry (Intracellular) - Anti-MelanA antibody [EP1422Y] (ab51061)

MelanA Flow Cytometry (Intracellular) staining using rabbit Anti-MelanA antibody

Overlay histogram showing Malme-3M cells stained with ab51061 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab51061, 1/1000 dilution) for 30 min at

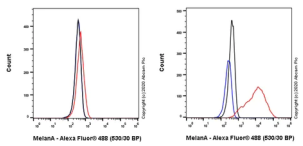
22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) (ab150077) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.
This image was generated using the un-purified format of the antibody.



Immunocytochemistry/ Immunofluorescence - Anti-MelanA antibody [EP1422Y] (ab51061)

MelanA Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-MelanA antibody

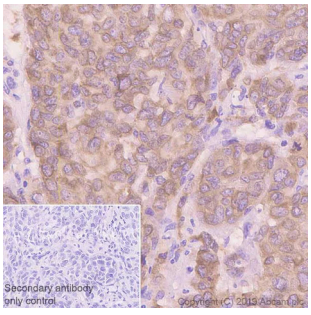
Immunocytochemistry/ Immunofluorescence analysis of MeWo (Human malignant melanoma fibroblast) cells labeling MelanA with Purified ab51061 at 1/100 dilution (10 µg/mL). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/mL) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-MelanA antibody [EP1422Y] (ab51061)

MelanA Flow Cytometry (Intracellular) staining using rabbit Anti-MelanA antibody

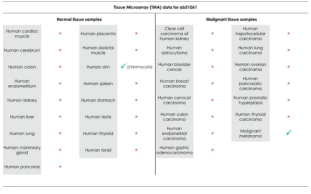
Intracellular Flow Cytometry analysis of A375 (Human malignant melanoma epithelial cell, Left) / MeWo (Human malignant melanoma fibroblast, Right) cells labeling MelanA with Purified ab51061 at 1/1000 dilution (1 µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MelanA antibody [EP1422Y] (ab51061)

MelanA Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MelanA antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human melanoma tissue sections labeling MelanA with purified ab51061 at 1/1000 dilution (1.15 µg/mL). Heat mediated antigen retrieval using Bond™☒ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

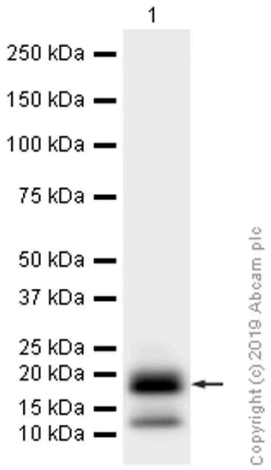


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MelanA antibody [EP1422Y] (ab51061)

MelanA Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MelanA antibody

Tissue Microarrays stained for Anti-MelanA antibody [EP1422Y] using ab51061 in immunohistochemical analysis. This table provides a detailed overview of positive (tick mark) and

negative (cross mark) staining per sample type tested. The sections were pre-treated using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes. The sections were incubated with ab51061 for 30 mins at room temperature followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Western blot - Anti-MelanA antibody [EP1422Y] (ab51061)

MelanA Western blot staining of Human melanoma lysates using rabbit Anti-MelanA antibody

Blocking/Diluting buffer: 5% NFDM/TBST
All lanes:
Western blot - Anti-MelanA antibody [EP1422Y] (ab51061) at 1/20000 dilution

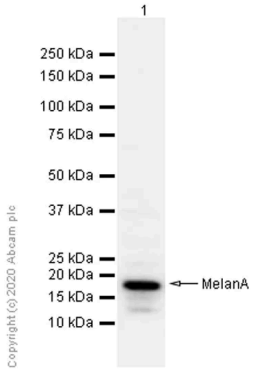
All lanes:
Human melanoma lysates at 15 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 13 kDa

Observed band size: 20 kDa



Western blot - Anti-MelanA antibody [EP1422Y] (ab51061)

MelanA Western blot staining of MeWo (Human malignant melanoma fibroblast) whole cell lysate using rabbit Anti-MelanA antibody

Blocking buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-MelanA antibody [EP1422Y] (ab51061) at 1/20000 dilution

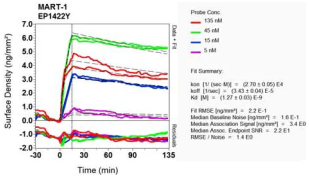
All lanes:
MeWo (Human malignant melanoma fibroblast) whole cell lysate at 15 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 13 kDa

Observed band size: 20 kDa



OI-RD Scanning - Anti-MelanA antibody [EP1422Y] (ab51061)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.