abcam

ab210546

Anti-MelanA antibody [EPR20380]

Anti-MelanA antibody [EPR20380] (ab210546) is a rabbit monoclonal antibody detecting MelanA in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF**. Suitable for **Human, Mouse**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 20 publications

Recombinant | RabMAb

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	EPR20380
Purification technique	Affinity purification Protein A
Concentration	0.534 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human

Dilution info	1/2000
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/500
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Human
Dilution info	1/500
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

IHC-P

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

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 [EPR20380] (ab210546) 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, Mouse samples.

What is the molecular weight of MelanA?
Anti-MelanA [EPR20380] (ab210546) specifically detects a band for MelanA (UniProt: Q16655) at a molecular weight of

13kDa.

Trusted by the scientific community
Anti-MelanA [EPR20380] (ab210546) was first used in a scientific publication in 2016 and has been cited over 20 times in peer-reviewed journals.

Reviewed by scientists
Anti-MelanA [EPR20380] (ab210546) has over 15 independent reviews from customers.

Other related products
We have a range of other formats of antibody clone [EPR20380] also available for your convenience: ab210546, Carrier free - ab222483, APC - ab225498, PE - ab225499, Alexa Fluor® 647 - ab225500

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.

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

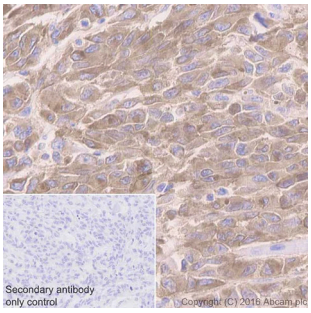
We do not recommend this combination. It is not covered by our product promise.

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.

10 product images



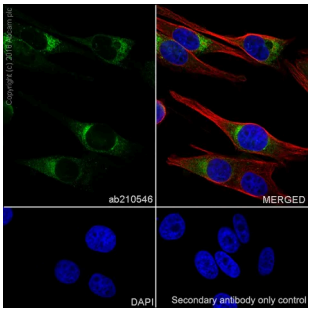
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MelanA antibody [EPR20380] (ab210546)

Immunohistochemical analysis of paraffin-embedded human malignant melanoma tissue labeling MelanA with ab210546 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.
Cytoplasmic staining on human malignant melanoma is observed [PMID: 17445277] [PMID: 21840568].

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-MelanA antibody [EPR20380] (ab210546)

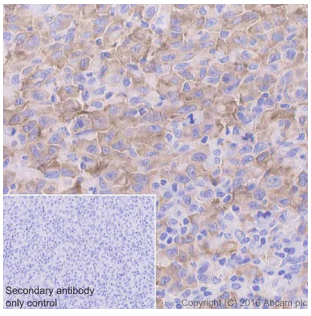
MelanA Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-MelanA antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized MeWo (Human malignant melanoma cell line) cells labeling MelanA with ab210546 at 1/1000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green).
Confocal image showing cytoplasmic staining on MeWo cell line.

The nuclear counterstain is DAPI (blue).

Tubulin is detected with ab195889 (Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594)) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) at 1/1000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MelanA antibody [EPR20380] (ab210546)

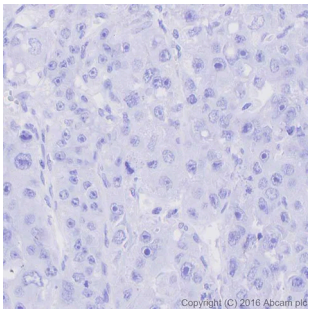
MelanA Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MelanA antibody

Immunohistochemical analysis of paraffin-embedded human metastatic malignant melanoma tissue labeling MelanA with ab210546 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.
Cytoplasmic staining on human metastatic malignant melanoma is observed [PMID: 17445277] [PMID: 21840568].

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



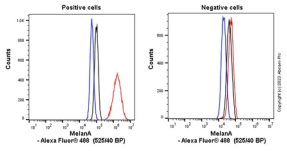
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MelanA antibody [EPR20380] (ab210546)

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

Immunohistochemical analysis of paraffin-embedded human liver cancer tissue labeling MelanA with ab210546 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.
Negative control: no staining on human liver cancer [PMID: 10096358].

Counter stained with Hematoxylin.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-MelanA antibody [EPR20380] (ab210546)

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

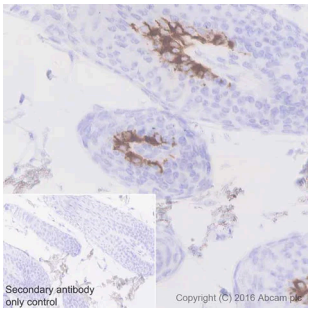
Flow cytometry overlay histogram showing left Malme-3M positive cells and right negative HEK293 stained with ab210546 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilised with 0.1 % PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS containing 10% normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab210546) (1x 106 in 100µl at 0.2µg/ml (1/10500)) for 30min at 22°C.

The secondary antibody Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/4000 for 30min at 22°C

Isotype control antibody (black line) was Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter.

This antibody gave a positive signal in Malme-3M Fixed with 4% formaldehyde (10 min) / permeabilised with 0.1 % PBS-Triton X-100 for 15 min under the same conditions.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MelanA antibody [EPR20380] (ab210546)

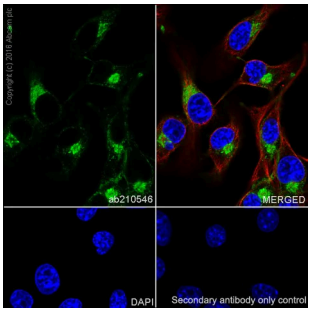
MelanA Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MelanA antibody

Immunohistochemical analysis of paraffin-embedded mouse hair bulb tissue labeling MelanA with ab210546 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.
Cytoplasmic staining on melanocytes of mouse hair bulb is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-MelanA antibody [EPR20380] (ab210546)

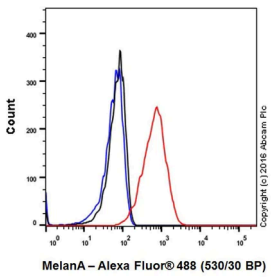
MelanA Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-MelanA antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized B16F0 (Mouse melanoma cell line) cells labeling MelanA with ab210546 at 1/1000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green).
Confocal image showing cytoplasmic staining on B16F0 cell line.

The nuclear counterstain is DAPI (blue).

Tubulin is detected with ab195889 (Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594)) at 1/200 dilution (red).

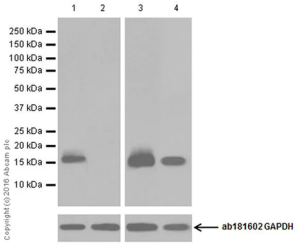
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-MelanA antibody [EPR20380] (ab210546)

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

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed B16F0 (Mouse melanoma cell line) cells labeling MelanA with ab210546 at 1/500 dilution (red) compared with a rabbit monoclonal IgG isotype control (ab172730; black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody.



Western blot - Anti-MelanA antibody [EPR20380] (ab210546)

MelanA Western blot staining using rabbit Anti-MelanA antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
Exposure time: Lane 1 and 2: 10 seconds; Lane 3 and 4: 3 seconds.

A-375 doesn't express MelanA. The expression profile observed is consistent with what has been described in the literature (PMID: 12670905).

All lanes:
Western blot - Anti-MelanA antibody [EPR20380] (ab210546) at 1/2000 dilution

Lane 1:
Human melanoma lysate at 20 µg

Lane 2:
A-375 (Human malignant melanoma cell line) whole cell lysate at 20 µg

Lane 3:
B16F0 (Mouse melanoma cell line) whole cell lysate at 20 µg

Lane 4:
MeWo (Human malignant melanoma cell line) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 13 kDa

Observed band size: 18 kDa

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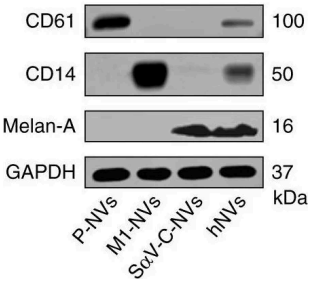


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Western blot - Anti-MelanA antibody [EPR20380] (ab210546)

MelanA Western blot staining using rabbit Anti-MelanA antibody

Western Blotting using Anti-MelanA antibody [EPR20380], ab210546. Publication image from Sun, W. et al., 2020, Nat Commun, 32999291. Legend direct from paper.

Schematic and characterization of hNVs.a Schematic showing the hNVs consist of engineered SαV-C-NVs, M1-NVs, and P-NVs. b Schematic showing the hNVs efficiently interact with CTCs in the blood, accumulate in the post-surgical tumor bed, repolarize TAMs towards M1 phenotype, and block the CD47-SIRPα ‘don’t eat me’ pathway, thus promoting macrophage phagocytosis of cancer cells, as well as boosting antitumor Tcell immunity. c, d Immunofluorescence imaging c and flow cytometry analysis d of SαV expression on original and engineered B16F10 cells. Scale bar, 10 µm. e Relative mRNA expression of Cd86, Tnf, Il6, and Inos in M0 cells, M1 cells, M0-NVs and M1-NVs. f Hydrodynamic size and zeta potential of P-NVs, M1-NVs, SαV-C-NVs, and hNVs measured by DLS. g TEM images of hNVs. Scale bar, 100 nm and 50 nm in the left and right panel, respectively. The samples were negatively stained with uranyl acetate. h Immunofluorescence images of hNVs. Scale bar, 10 µm. i Western blot analysis of specific protein CD61, CD14, and Melan-A in the samples of P-NVs, M1-NVs, SαV-C-NVs, and hNVs. All data are presented as mean ± S.D. (n = 3). Statistical significance was calculated via unpaired two-tailed t test. **P < 0.01; ***P < 0.001.

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