


Product datasheet

Anti-MiTF antibody [C5] ab12039

★★★★★ 5 Abreviews 89 References 2 Images

Overview

Product name	Anti-MiTF antibody [C5]
Description	Mouse monoclonal [C5] to MiTF
Host species	Mouse
Tested applications	Suitable for: Flow Cyt, WB
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Chicken 
Immunogen	Recombinant fragment corresponding to Human MiTF (N terminal).
Positive control	WB: Malme-3M whole cell lysate. Flow Cyt: Malme-3M cells.
General notes	<p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com.</p> <p>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.</p> <p>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</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 6.97% L-Arginine
Purity	Protein G purified
Clonality	Monoclonal
Clone number	C5
Isotype	IgG1

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab12039 in the following tested applications.

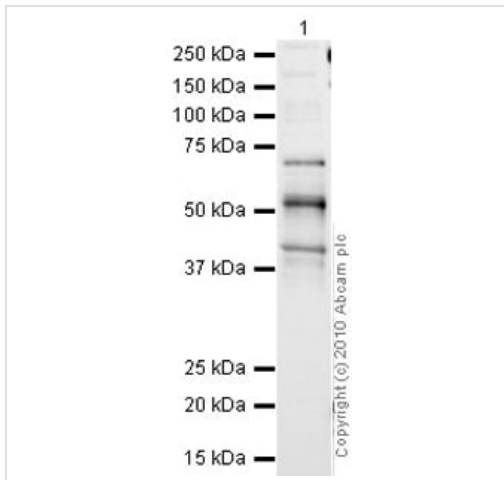
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		Use 2µg for 10 ⁶ cells. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 52-56 kDa (predicted molecular weight: 59 kDa).

Target

Function	Transcription factor for tyrosinase and tyrosinase-related protein 1. Binds to a symmetrical DNA sequence (E-boxes) (5'-CACGTG-3') found in the tyrosinase promoter. Plays a critical role in the differentiation of various cell types as neural crest-derived melanocytes, mast cells, osteoclasts and optic cup-derived retinal pigment epithelium.
Tissue specificity	Isoform M is exclusively expressed in melanocytes and melanoma cells. Isoform A and isoform H are widely expressed in many cell types including melanocytes and retinal pigment epithelium (RPE). Isoform C is expressed in many cell types including RPE but not in melanocyte-lineage cells.
Involvement in disease	Defects in MITF are the cause of Waardenburg syndrome type 2A (WS2A) [MIM:193510]. It is a dominant inherited disorder characterized by sensorineural hearing loss and patches of depigmentation. The features show variable expression and penetrance. Defects in MITF are a cause of Waardenburg syndrome type 2 with ocular albinism (WS2-OA) [MIM:103470]. It is an ocular albinism with sensorineural deafness. Defects in MITF are the cause of Tietz syndrome (TIETZS) [MIM:103500]. It is an autosomal dominant disorder characterized by generalized hypopigmentation and profound, congenital, bilateral deafness. Penetrance is complete.
Sequence similarities	Belongs to the MiT/TFE family. Contains 1 basic helix-loop-helix (bHLH) domain.
Post-translational modifications	Phosphorylation at Ser-405 significantly enhances the ability to bind the tyrosinase promoter.
Cellular localization	Nucleus.

Images



Western blot - Anti-MiTF antibody [C5] (ab12039)

Anti-MiTF antibody [C5] (ab12039) at 1 µg/ml + Malme 3m (Human melanoma cells) Whole Cell Lysate at 10 µg

Secondary

Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

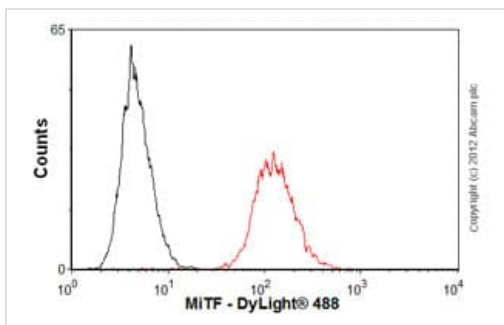
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 59 kDa

Observed band size: 40,55,70 kDa

Exposure time: 20 minutes



Flow Cytometry - Anti-MiTF antibody [C5] (ab12039)

Overlay histogram showing Malme 3m cells stained with ab12039 (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 (ab12039, 2µg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed.

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