

## Product datasheet

# Anti-MiTF antibody ab122982

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### Overview

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<b>Product name</b>	Anti-MiTF antibody
<b>Description</b>	Rabbit polyclonal to MiTF
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-Fr, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Chicken, Human, Xenopus laevis
<b>Immunogen</b>	Recombinant full length protein (His-tag) corresponding to Human MiTF. Database link: <a href="#">O75030</a>

### General notes

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

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, as well as customer reviews and Q&As.

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.

<b>Storage buffer</b>	pH: 6 Preservative: 0.05% Sodium azide Constituent: 99% Whole serum
<b>Purity</b>	Whole antiserum
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab122982** in the following tested applications.

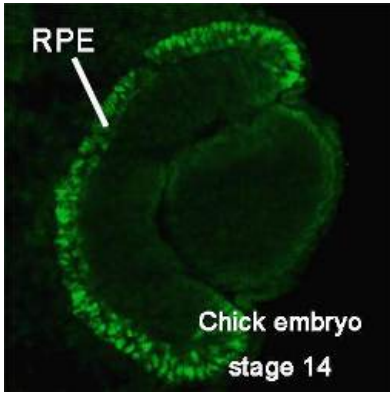
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-Fr		1/300 - 1/1000.
ICC/IF		1/300.

## Target

<b>Function</b>	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.
<b>Tissue specificity</b>	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.
<b>Involvement in disease</b>	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.
<b>Sequence similarities</b>	Belongs to the MiT/TFE family. Contains 1 basic helix-loop-helix (bHLH) domain.
<b>Post-translational modifications</b>	Phosphorylation at Ser-405 significantly enhances the ability to bind the tyrosinase promoter.
<b>Cellular localization</b>	Nucleus.

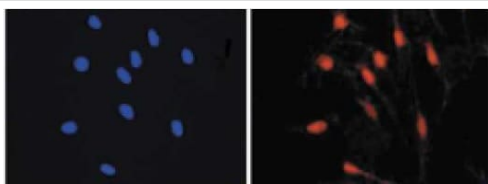
## Images



Immunohistochemistry (Frozen sections) - Anti-MiTF antibody (ab122982)

Immunohistochemical analysis of RPE (Retinal Pigment Epithelium) in chicken embryo (stage 14) labelling MiTF with ab122982 at dilution of 1/300. Embryo was fixed with paraformaldehyde and embedded in OCT compound and sectioned with a cryostat at 8  $\mu$ m. Alexa Fluor<sup>®</sup> 488 conjugated anti-rabbit IgG was used at the secondary antibody.

At stage 14, Mitif protein is detected throughout the RPE (Retinal Pigment Epithelium).



Immunocytochemistry/ Immunofluorescence - Anti-MiTF antibody (ab122982)

Immunofluorescence analysis of mouse primary melanocytes labelling MiTF with ab122982 at a dilution of 1/300 (right). Nuclei counterstained with DAPI (blue) (left).

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

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