

Rabbit MITF Polyclonal Antibody | anti-MITF antibody

MITF Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322148	Rabbit	Human, Mouse, Monkey	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

MITF; Polyclonal Antibody; MITF Antibody; BHLHE32; bHLHe32; Class E basic helix-loop-helix protein 32; CMM8; Homolog of mouse microphthalmia; Mi; Microphthalmia associated transcription factor; Microphthalmia; mouse; homolog of; Microphthalmia-associated transcription factor; MITF_HUMAN; mitfa; nacre; WS2; WS2A; z3A.1; anti-MITF antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Monkey
Clonality	Polyclonal
Isotype	IgG
Specificity	MITF antibody detects endogenous levels of total MITF
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	419
Applicable Applications for anti-MITF antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human MITF
Subcellular Location	Nucleus.
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. Isoform Mdel is widely expressed in melanocytes, melanoma cell lines and tissues, but almost undetectable in non-melanoma cell lines.
Predicted Cross Reactivity	Pig, Bovine, Sheep, Rabbit, Dog, Xenopus
Similarity	Pig (100%), Bovine (100%), Sheep (100%), Rabbit (100%), Dog (100%), Xenopus (92%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
AAA322148 at 1/100 staining Human breast cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of MITF expression in HepG2 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)
AAA322148 staining Hela cells by ICC/IF. Cells were fixed with PFA and permeabilized in 0.1% saponin prior to blocking in 10% serum for 45 minutes at 37 degree C. The primary antibody was diluted 1/400 and incubated with the sample for 1 hour at 37 degree C. A Alexa Fluor 594 conjugated goat polyclonal to rabbit IgG (H+L), diluted 1/600 was used as secondary antibody.



IF (Immunofluorescence)
AAA322148 staining COS7 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-MITF antibody

Description: MITF is a transcription factor that contains both basic helix-loop-helix and leucine zipper structural features. Plays a critical role in the differentiation of various cell types including neural crest-derived melanocytes, mast cells, osteoclasts and optic cup-derived retinal pigment epithelium.

Function: Transcription factor that regulates the expression of genes with essential roles in cell differentiation, proliferation and survival. Binds to M-boxes (5'-TCATGTG-3') and symmetrical DNA sequences (E-boxes) (5'-CACGTG-3') found in the promoters of target genes, such as BCL2 and tyrosinase (TYR). Plays an important role in melanocyte development by regulating the expression of tyrosinase (TYR) and tyrosinase-related protein 1 (TYRP1). Plays a critical role in the differentiation of various cell types, such as neural crest-derived melanocytes, mast cells, osteoclasts and optic cup-derived retinal pigment epithelium.

Subunit Structure: Homodimer or heterodimer; dimerization is mediated via the coiled coil region (PubMed:24631970). Efficient DNA binding requires dimerization with another bHLH protein. Binds DNA in the form of homodimer or heterodimer with either TFE3, TFEB or TFEC. Interacts with KARS (PubMed:14975237). Identified in a complex with HINT1 and CTNNB1 (PubMed:22647378).

Post-translational Modifications: Phosphorylation at Ser-405 significantly enhances the ability to bind the tyrosinase promoter. Phosphorylated at Ser-180 and Ser-516 following KIT signaling, triggering a short live activation: Phosphorylation at Ser-180 and Ser-516 by MAPK and RPS6KA1, respectively, activate the transcription factor activity but also promote ubiquitination and subsequent degradation by the proteasome. Ubiquitinated following phosphorylation at Ser-180, leading to subsequent degradation by the proteasome. Deubiquitinated by USP13, preventing its degradation.

Similarity: The leucine zipper region is part of a larger coiled coil. Belongs to the MiT/TFE family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4557755
NCBI GeneID	4286
NCBI Accession #	NP_000239.1
NCBI GenBank Nucleotide #	NM_000248.3
UniProt Accession #	O75030; Q14841; Q9P2V0; Q9P2V1; Q9P2V2; Q9P2Y8; B4DJL2; D3K197; E9PFN0
Molecular Weight	Observed: 52 kDa Predicted: 59 kDa
NCBI Official Full Name	microphthalmia-associated transcription factor isoform 4
NCBI Official Synonym Full Names	melanocyte inducing transcription factor

NCBI Official Symbol	MITF
NCBI Official Synonym Symbols	MI; WS2; CMM8; WS2A; COMMAD; bHLHe32
NCBI Protein Information	microphthalmia-associated transcription factor
UniProt Protein Name	Microphthalmia-associated transcription factor
UniProt Gene Name	MITF
UniProt Synonym Gene Names	BHLHE32; bHLHe32

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/mitf-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/322148>