# Rabbit MITF Polyclonal Antibody | anti-MITF antibody

Phospho-MITF (Ser414) Antibody

| CATALOG # | HOST | REACTIVITY | APPLICATIONS |
|---|---|---|---|
| **AAA328315** | **Rabbit** | **Human, MousePredicted: Pig, Horse, Rabbit, Dog, Xenopus** | **ELISA, Immunohistochemistry, Western Blot** |

## PRODUCT SYNONYMS

MITF; Polyclonal Antibody; Phospho-MITF (Ser414) 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

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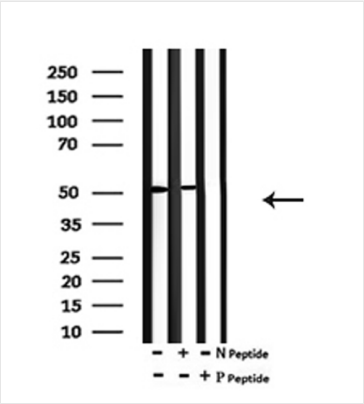
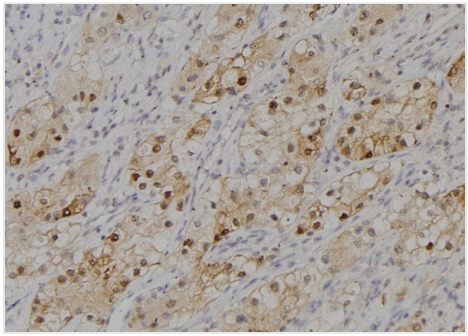
| **Host** | Rabbit |
| **Reactivity** | Human, Mouse<br>Predicted: Pig, Horse, Rabbit, Dog, Xenopus |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Specificity** | Phospho-MITF (Ser414) Antibody detects endogenous levels of MITF only when phosphorylated at Ser414. |
| **Purity/Purification** | Purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns. |
| **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 (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot) |
| **Immunogen** | A synthesized peptide derived from human MITF around the phosphorylation site of Ser414. |
| **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. |
| **Subcellular Location** | Nucleus |
| **Preparation and Storage** | Store at -20 degree C. Stable for 12 months from date of receipt. |

## IMAGES




**WB (Western Blot)**
Western blot analysis of Phospho-MITF (Ser414) in lysates of COS7, using Phospho-MITF (Ser414) Antibody.



**IHC (Immunohistochemistry)**
At 1/100 staining human kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue 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

## ADDITIONAL INFORMATION

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| **Related Product Information for anti-MITF antibody** | Description: 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.<br><br>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, trigerring 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.<br><br>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).<br><br>Similarity: The leucine zipper region is part of a larger coiled coil. Belongs to the MiT/TFE family. |

## NCBI AND UNIPROT INFORMATION

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| **NCBI GI #** | 4557755 |
| **NCBI GeneID** | 4286 |
| **NCBI Accession #** | NP_000239.1 |
| **NCBI GenBank Nucleotide #** | NP_000239.1 |
| **UniProt Accession #** | O75030 |
| **Molecular Weight** | Observed: 52 kDa<br>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 |

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|---|---|
| **NCBI Protein Information** | microphthalmia-associated transcription factor |
| **UniProt Protein Name** | Microphthalmia-associated transcription factor |
| **UniProt Gene Name** | **MITF** |
| **UniProt Synonym Gene Names** | BHLHE32; bHLHe32 |
| **UniProt Entry Name** | MITF_HUMAN |

**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://www.aaabiotech.com/polyclonal/mitf-antibody-peptide-elisa-immunohistochemistry-western-blot-elisa/328315