Product Name: MITF (phospho Ser180) Rabbit Polyclonal Antibody
Catalog #: APRab05022

Summary

Production Name	MITF (phospho Ser180) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human,Mouse,Monkey

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	MITF
Alternative Names	MITF; BHLHE32; Microphthalmia-associated transcription factor; Class E basic helix-loop-helix protein 32; bHLHe32
Gene ID	4286.0
SwissProt ID	O75030.The antiserum was produced against synthesized peptide derived from human MITF around the phosphorylation site of Ser180/73. AA range:151-200

Application

Dilution Ratio	WB 1:500-1:2000. ELISA: 1:10000.
Molecular Weight	52kD

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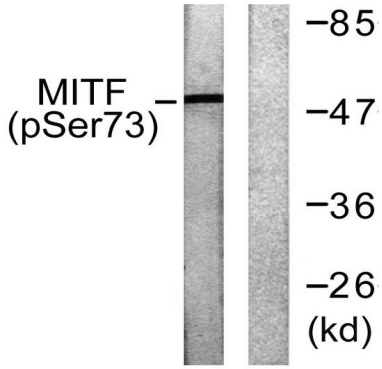
Background

This gene encodes a transcription factor that contains both basic helix-loop-helix and leucine zipper structural features. It regulates the differentiation and development of melanocytes retinal pigment epithelium and is also responsible for pigment cell-specific transcription of the melanogenesis enzyme genes. Heterozygous mutations in the this gene cause auditory-pigmentary syndromes, such as Waardenburg syndrome type 2 and Tietz syndrome. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008],alternative products:The X2-type isoforms differ from the X1-type isoforms by the absence of a 6 residue insert,disease: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.,disease:Defects in MITF are the cause of Tietz syndrome [MIM:103500]. It is an autosomal dominant disorder characterized by generalized hypopigmentation and profound, congenital, bilateral deafness. Penetrance is complete.,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.,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.,PTM:Phosphorylation at Ser-405 significantly enhances the ability to bind the tyrosinase promoter.,similarity:Belongs to the MiT/TFE family.,similarity:Contains 1 basic helix-loop-helix (bHLH) domain.,subunit:Efficient DNA binding requires dimerization with another bHLH protein. Binds DNA in the form of homodimer or heterodimer with either TFE3, TFEB or TFEC.,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.,

Research Area

Melanogenesis;Pathways in cancer;Melanoma;

Image Data



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Western blot analysis of lysates from COS7 cells, using MITF （Phospho-Ser180/73） Antibody. The lane on the right is blocked with the phospho peptide.

Note

For research use only.