MiTF (ANT0006R) Rabbit mAb

CatalogNo: ANT8062 Recombinant

Formulation: PBS,50%glycerol,0.05%Proclin 300,0.05%BSA
Quantity : 100 ug/vial

Host Species	Reactivity	Applications
• Rabbit • Human,Mouse,Rat,	• WB,IHC,IF,IP,ELISA	

MW	Isotype
• 58kD (Calculated) 58kD (Observed)	• IgG,Kappa

Recommended Dilution Ratios

IHC 1:200-500
WB 1:1000-5000
IF 1:200-1000
ELISA 1:5000-20000
IP 1:50-200

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)

Basic Information

Clonality	Monoclonal
Clone Number	ANT0006R

Target Information

Immunogen Information Specificity

Endogenous

Gene name MITF

Protein Name Microphthalmia-associated transcription factor

Organism	Gene ID	UniProt ID
Human	4286;	O75030;
Mouse	17342;	Q08874;

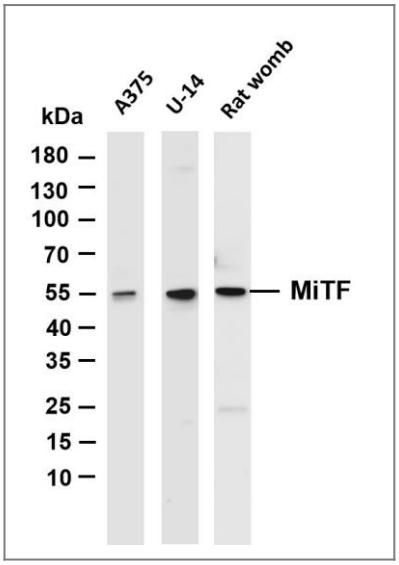
Cellular Localization Nuclear

Tissue specificity Expressed in melanocytes (at protein level). ; [Isoform A2]: Expressed in the retinal pigment epithelium, brain, and placenta (PubMed:9647758). Expressed in the kidney (PubMed:9647758, PubMed:10578055). ; [Isoform C2]: Expressed in the kidney and retinal pigment epithelium. ; [Isoform H1]: Expressed in the kidney. ; [Isoform H2]: Expressed in the kidney. ; [Isoform M1]: Expressed in melanocytes. ; [Isoform Mdel]: Expressed in melanocytes.

Function 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 crestderived melanocytes, mast cells, osteoclasts and optic cup-derived retinal pigment epithelium.,ANTM: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.,

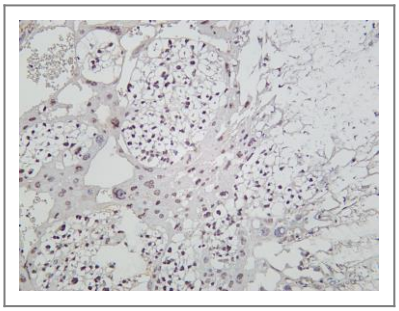
Validation

Data

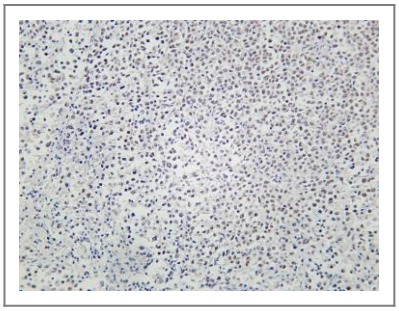


Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-MiTF (ANT0006R) antibody. The HRPconjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: A375 Lane 2: U-14 Lane 3: Rat womb Predicted band size:

58kDa Observed band size: 58kDa



Mouse placenta was stained with Anti-MiTF (ANT0006R) rabbit antibody



Human melanoma was stained with Anti-MiTF (ANT0006R) rabbit antibody