



## Mouse Monoclonal Antibody **MiTF** conjugated to Sepharose Beads

CatalogNo: **ANT8062-S**

Size 200ul

Storage Store at 4 °C for frequent use

### Description

This Antagene antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated sepharose beads. It is useful for immunoprecipitation assays.

### **MiTF (ANT0006R) Rabbit mAb**

Formulation: 50% slurry in PBS pH 7.2 with 0.01mg NaN<sub>3</sub> preservative.

#### Host Species

- Rabbit
- Human, Mouse, Rat,

#### Reactivity

- WB, IHC, IF, IP, ELISA

#### Applications

#### MW

- 58kD (Calculated)
  - IgG, Kappa
- 58kD (Observed)

#### Isotype

## **Recommended Dilution Ratios**

### **IP**

### **Basic Information**

|                  |            |
|------------------|------------|
| <b>Clonality</b> | Monoclonal |
|------------------|------------|

|                     |          |
|---------------------|----------|
| <b>Clone Number</b> | ANT0006R |
|---------------------|----------|

Endogenous

Gene name MITF  
Protein Name Microphthalmia-associated transcription factor

| Organism | Gene ID                 | UniProt ID               |
|----------|-------------------------|--------------------------|
| Human    | <a href="#">4286</a> ;  | <a href="#">O75030</a> ; |
| Mouse    | <a href="#">17342</a> ; | <a href="#">Q08874</a> ; |

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.

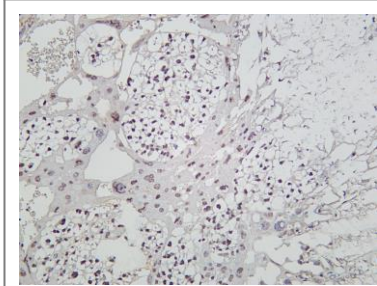
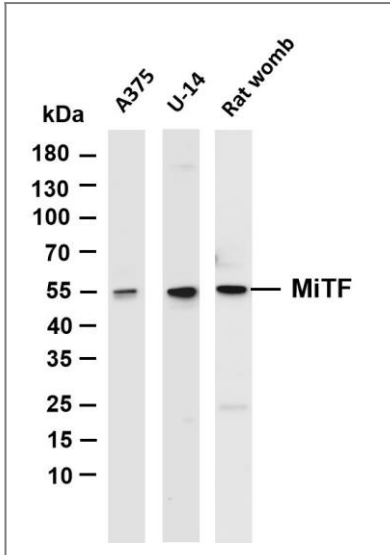
Function Alternative products:The X2-type isoforms differ from the X1-type isoforms by the absence of a 6 residue insert,Disease:Defects in MITF are a cause of Waardenburg syndrome type 2 with ocular albinism (WS2-OA) [MIM:103470]. It is an ocular albinism with sensorineural deafness.,Disease:Defects 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

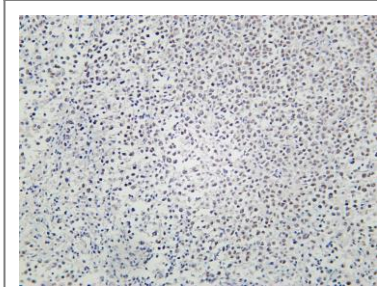
### Data

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

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