

# MITF (D5G7V) Rabbit mAb

✓ 100 µl  
(10 western blots)

**Orders** ■ 877-616-CELL (2355)  
orders@cellsignal.com  
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info@cellsignal.com  
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Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, ChIP Endogenous	H, M, R, Mk, Hm	50-75 kDa	Rabbit IgG**

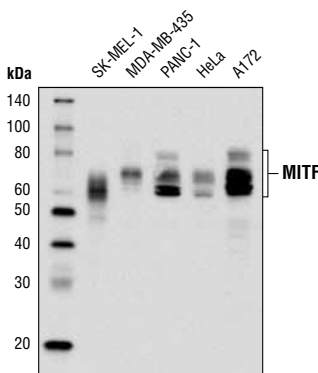
**Background:** Microphthalmia-associated transcription factor (MITF) is a basic helix-loop-helix leucine zipper transcription factor that is most widely known for its roles in melanocyte, ophthalmic, and osteoclast development (1-3). In humans, MITF can function as a melanoma oncogene (4) and mutations in the corresponding MITF gene are associated with Waardenburg syndrome type 2, an auditory-pigmentary syndrome characterized by developmental defects in cells derived from neural crest (5). At least 12 isoforms of MITF have been identified, which exhibit differential patterns of expression of cell and tissue types (6).

**Specificity/Sensitivity:** MITF (D5G7V) Rabbit mAb recognizes endogenous levels of total MITF protein. The antibody is predicted to recognize all known isoforms of MITF. Based on sequence similarities, this antibody may also detect the related Mitf/TEF protein family member TFE3.

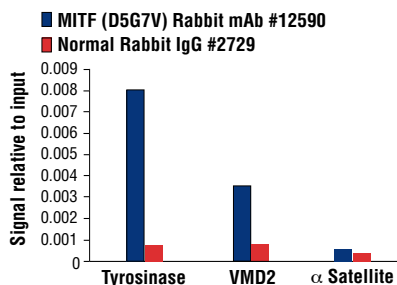
**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly335 of human MITF protein.

**Background References:**

- (1) Hershey, C.L. and Fisher, D.E. (2004) *Bone* 34, 689-96.
- (2) Nomura, S. et al. (2001) *J Bone Miner Metab* 19, 183-7.
- (3) Widlund, H.R. and Fisher, D.E. (2003) *Oncogene* 22, 3035-41.
- (4) Levy, C. et al. (2006) *Trends Mol Med* 12, 406-14.
- (5) Read, A.P. and Newton, V.E. (1997) *J Med Genet* 34, 656-65.
- (6) Tachibana, M. (2000) *Pigment Cell Res* 13, 230-40.



Western blot analysis of extracts from various cell lines using MITF (D5G7V) Rabbit mAb.



Chromatin immunoprecipitations were performed with cross-linked chromatin from 4 x 10<sup>6</sup> SK-MEL-28 cells and either 10 µl of MITF (D5G7V) Rabbit mAb or 2 µl of Normal Rabbit IgG #2729 using SimpleChIP® Enzymatic Chromatin IP Kit (Magnetic Beads) #9003. The enriched DNA was quantified by real-time PCR using SimpleChIP® Human Tyrosinase Promoter Primers #12970, human VMD2 intron 1 primers, and SimpleChIP® Human α Satellite Repeat Primers #4486. The amount of immunoprecipitated DNA in each sample is represented as signal relative to the total amount of input chromatin, which is equivalent to one.

Entrez Gene ID #4286  
UniProt ID #075030

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

\*Species cross-reactivity is determined by western blot.

\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**

Western blotting	1:1000
Chromatin IP	1:50

For product specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**IMPORTANT:** For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

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**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.