

Mouse Anti-MiTF (Microphthalmia Transcription Factor) [C5/D5]: MC0366, MC0366RTU7

Intended Use: For Research Use Only

Description: MiTF is a basic helix-loop-helix-leucine zipper (b-HLH-ZIP) transcription factor implicated in pigmentation, mast cells and bone development. The mutation of Mi causes Waardenburg Syndrome type II in humans. In mice, a profound loss of pigmented cells in the skin eye and inner ear results, as well as osteopetrosis and defects in natural killer and mast cells. There are two known isoforms of MiTF differing by 66 amino acids at the NH2 terminus. Shorter forms are expressed in melanocytes and run as two bands at 52kDa and 56kDa, while the longer Mi form runs as a cluster of bands at 60-70kDa in osteoclasts and in B16 melanoma cells (but not other melanoma cell lines), as well as mast cells and heart. Clone D5 cocktail is especially designed for sensitive detection of MiTF protein. C5 reacts with both melanocytic and non-melanocytic isoforms of MiTF.

Specifications

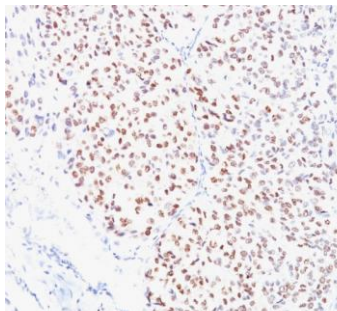
Clone:	C5/D5
Source:	Mouse
Isotype:	IgG1k
Reactivity:	Human
Immunogen:	NH2 terminus fragment of human MiTF protein
Localization:	Nucleus
Formulation:	Purified antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN ₃)
Storage:	Store at 2°- 8°C
Applications:	IHC
Package:	

Description	Catalog No.	Size
MiTF [C5/D5] Concentrated	MC0366	1 ml
MiTF [C5/D5] Prediluted	MC0366RTU7	7 ml

IHC Procedure*

Positive Control Tissue:	Melanoma
Concentrated Dilution:	50-200
Pretreatment:	Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C
Incubation Time and Temp:	30-60 minutes @ RT
Detection:	Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human melanoma stained with anti-MiTF using DAB

References:

1. Inhibitory activity of soybean (Glycine max L. Merr.) Cell Culture Extract on tyrosinase activity and melanin formation in alpha-melanocyte stimulating Hormone-Induced B16-F10 melanoma cells. Yildiz Bodurlar, et al. Mol Biol Rep. Aug; 49(8):7827-7836, 2022.
2. The Major Ciliary Isoforms of RPGR Build Different Interaction Complexes with INPP5E and RPGRIP1L. Vössing C, et al. Int J Mol Sci 22:N/A, 2021.
3. Citrullination of pyruvate kinase M2 by PADI1 and PADI3 regulates glycolysis and cancer cell proliferation. Coassolo S, et al. Nat Commun 12:1718, 2021.

Doc. 100-MC0366

Rev. A