ARG56053
anti-MITF antibody [D5]

Package: 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [D5] recognizes MITF
Tested Reactivity	Hu
Species Does Not React With	Ms, Rat
Tested Application	IHC-P
Host	Mouse
Clonality	Monoclonal
Clone	D5
Isotype	IgG1, kappa
Target Name	MITF
Species	Human
Immunogen	An N-terminus fragment of Human MITF protein
Conjugation	Un-conjugated
Alternate Names	bHLHe32; Class E basic helix-loop-helix protein 32; MI; Microphthalmia-associated transcription factor; WS2; WS2A; CMM8

Application Instructions

Application table

Application	Dilution
IHC-P	1 - 2 µg/ml

Application Note

IHC-P: Antigen Retrieval: Boil tissue section in 10 mM Citrate buffer (pH 6.0) for 10-20 min, followed by cooling at RT for 20 min.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

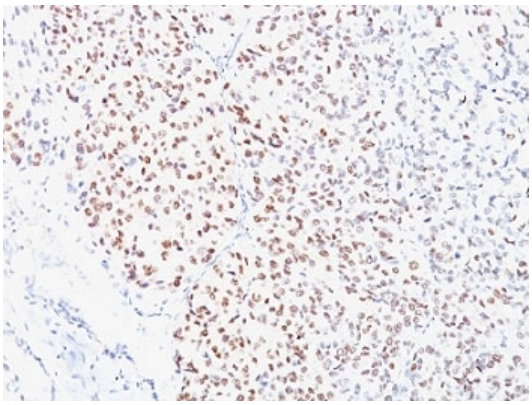
Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS (pH 7.4), 0.05% Sodium azide and 0.1 mg/ml BSA
Preservative	0.05% Sodium azide
Stabilizer	0.1 mg/ml BSA
Concentration	0.2 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed

	before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 4286 Human Swiss-port # O75030 Human
Gene Symbol	MITF
Gene Full Name	microphthalmia-associated transcription factor
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]
Function	Transcription factor that regulates the expression of genes with essential roles in cell differentiation, proliferation and survival. Binds to symmetrical DNA sequences (E-boxes) (5'-CACGTG-3') found in the promoters of target genes, such as BCL2 and tyrosinase (TYR). Plays an important role in melanocyte development by regulating the expression of tyrosinase (TYR) and tyrosinase-related protein 1 (TYRP1). Plays a critical role in the differentiation of various cell types, such as neural crest-derived melanocytes, mast cells, osteoclasts and optic cup-derived retinal pigment epithelium. [UniProt]
Calculated Mw	59 kDa
PTM	Phosphorylation at Ser-405 significantly enhances the ability to bind the tyrosinase promoter. Phosphorylated at Ser-180 and Ser-516 following KIT signaling, trigerring a short live activation: Phosphorylation at Ser-180 and Ser-516 by MAPK and RPS6KA1, respectively, activate the transcription factor activity but also promote ubiquitination and subsequent degradation by the proteasome. Ubiquitinated following phosphorylation at Ser-180, leading to subsequent degradation by the proteasome. Deubiquitinated by USP13, preventing its degradation.
Cellular Localization	Nuclear

Images



ARG56053 anti-MITF antibody [D5] IHC-P image

Immunohistochemistry: Formalin-fixed, paraffin-embedded Human melanoma stained with ARG56053 anti-MITF antibody [D5].