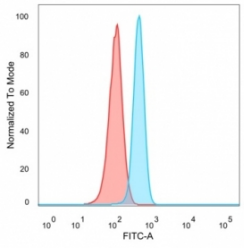
MITF Antibody [clone PCRP-MITF-1D9] (V8800)

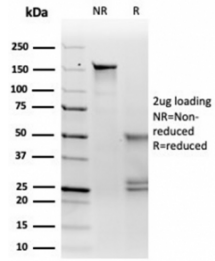
Catalog No.	Formulation	Size
V8800-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V8800-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V8800SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

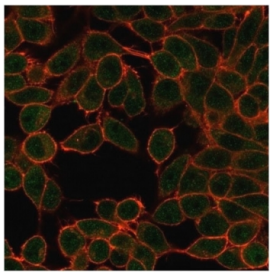
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b
Clone Name	PCRP-MITF-1D9
Purity	Protein A/G affinity
UniProt	O75030
Localization	Nucleus
Applications	Immunoprecipitation : 1-2ug per 100-500ug of total protein (1ml of cell lysate) Immunofluorescence : 1-2ug/ml Flow Cytometry : 1-2ug/million cells Western Blot : 1-2ug/ml
Limitations	This MITF antibody is available for research use only.



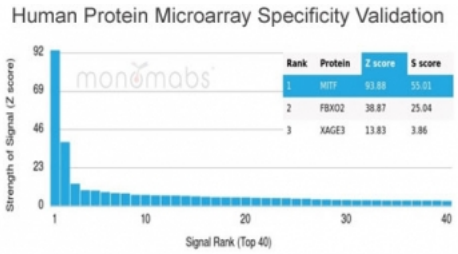
FACS staining of PFA-fixed human HeLa cells with MITF antibody (blue, clone PCRP-MITF-1D9) and isotype control (red).



SDS-PAGE analysis of purified, BSA-free MITF antibody (PCRP-MITF-1D9) as confirmation of integrity and purity.



Immunofluorescent staining of PFA-fixed human HeLa cells using MITF antibody (green, clone PCRP-MITF-1D9) and phalloidin (red).



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using MITF antibody (clone PCRP-MITF-1D9). These results demonstrate the foremost specificity of the PCRP-MITF-1D9 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.

Description

MITF (microphthalmia-associated transcription factor) is a melanocytic nuclear protein that contains basic helix-loop-helix (HLH) and leucine zipper (LZ) domains. These protein motifs are frequently observed in other transcription factors and are particularly common to members of the Myc family. MITF can directly associate with DNA as a homodimer and is required for the development and differentiation of melanocytes. Its expression is upregulated by cAMP and cAMP-dependent pathways. MITF activates several different gene promoters by binding to their E-boxes. Tyrosinase, TRP1 and TRP2 are pigment synthesis genes activated by MITF. When MITF is phosphorylated on Ser73 (via the MAPK pathway), it associates with co-activators of the p300/CBP family and enhances transcription. MITF has several isoforms including MITF-M which is specifically expressed in melanocytes. In MITFdeficient mice there is a complete absence of melanocytes.

Application Notes

Optimal dilution of the MITF antibody should be determined by the researcher.

Immunogen

Recombinant full-length human MITF protein was used as the immunogen for the MITF antibody.

Storage

Aliquot the MITF antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.