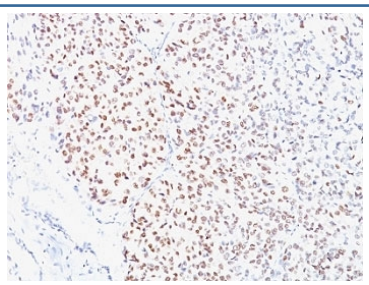
# MITF Antibody [clone C5/D5] (V2712)

| Catalog No. | Formulation | Size |
|---|---|---|
| V2712-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 100 ug |
| V2712-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 20 ug |
| V2712SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |
| V2712IHC-7ML | Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only* | 7 ml |

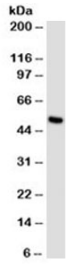
Citations (10)

**Bulk quote request**

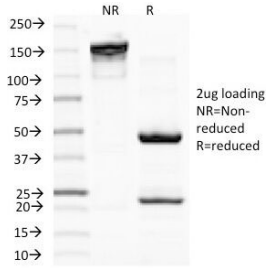
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Mouse |
| **Clonality** | Monoclonal (mouse origin) |
| **Isotype** | Mouse IgG1, kappa |
| **Clone Name** | C5/D5 |
| **Purity** | Protein G affinity chromatography |
| **UniProt** | O75030 |
| **Localization** | Nuclear |
| **Applications** | Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT (1) (2) |
| **Limitations** | This MITF antibody is available for research use only. |



IHC analysis of formalin-fixed, paraffin-embedded human melanoma stained with MITF antibody (clone C5/D5).




Western blot testing of HeLa cell lysate (nuclear fraction) with MITF antibody (clone C5/D5). Predicted molecular weight: 55-60 kDa, observed here at 50-55 kDa.




SDS-PAGE Analysis of Purified, BSA-Free MITF Antibody (clone C5/D5). Confirmation of Integrity and Purity of the Antibody.

## Description

MITF (microphthalmia transcription factor) is a basic helix-loop-helix-leucine-zipper (bHLH-Zip) transcription factor that regulates the development and survival of melanocytes and retinal pigment epithelium, and also is involved in transcription of pigmentation enzyme genes such as tyrosinase TRP1 and TRP2. MITF has been shown to be phosphorylated by MAP kinase in response to c-kit activation, resulting in upregulation of MITF transcriptional activity. Mutations of the MITF gene are associated with the autosomal dominant hereditary deafness and pigmentation condition, Waardenburg Syndrome type 2A. Multiple isoforms of MITF exist, including MITF-A, MITF-B, MITF-C, MITF-H, and MITF-M, which differ in the amino-terminal domain and in their expression patterns. The MITF-M isoform is restricted to the melanocyte cell lineage. Anti-MITF, C5/D5, recognizes a nuclear protein, which is expressed in the majority of primary and metastatic epithelioid malignant melanomas as well as in normal melanocytes, benign nevi and dysplastic nevi.

## Application Notes

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

1. Staining of formalin-fixed tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 minutes
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

## Immunogen

An N-terminus fragment of human MITF protein was used as the immunogen for the MITF antibody.

## Storage

Store the MITF antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).