BACKGROUND

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. It 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. MITF has several isoforms including MITF-M which is specifically expressed in melanocytes. In MITF-deficient mice there is a complete absence of melanocytes.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: MITF (human) mapping to 3p14.1; Mitf (mouse) mapping to 6 D3.

SOURCE

MITF (21D1418) is a mouse monoclonal antibody raised against amino acids 301-312 MITF of human origin.

PRODUCT

Each vial contains 100 µg IgG1 in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No SDS required.

APPLICATIONS

MITF (21D1418) is recommended for detection of MITF of mouse, rat, human, Arabidopsis thaliana and Xenopus laevis origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)).

MITF (21D1418) is also recommended for detection of MITF in additional species, including equine, bovine and canine.

Suitable for use as control antibody for MITF siRNA (h): sc-35934, MITF siRNA (m): sc-35935, MITF shRNA Plasmid (h): sc-35934-SH, MITF shRNA Plasmid (m): sc-35935-SH, MITF shRNA (h) Lentiviral Particles: sc-35934-V and MITF shRNA (m) Lentiviral Particles: sc-35935-V.

Molecular Weight of MITF: 60 kDa.

Positive Controls: SK-MEL-28 cell lysate: sc-2236, NIH/3T3 nuclear extract: sc-2138 or Jurkat nuclear extract: sc-2132.

DATA

Molecular Weight of MITF: 60 kDa.

SELECT PRODUCT CITATIONS


RESEARCH USE

For research use only, not for use in diagnostic procedures.