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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Microphthalmia Transcription Factor (MiTF). Mouse Monoclonal Antibody
MiTF

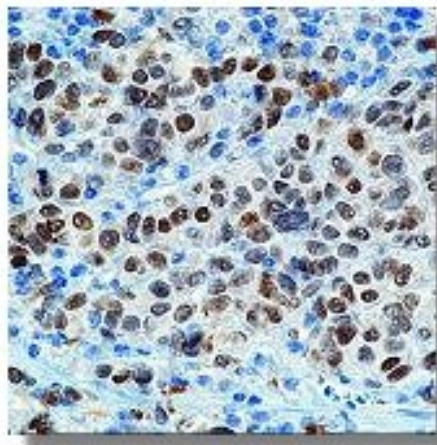
BACKGROUND

In Western blotting, it recognizes a doublet of 52-56kDa, identified as serine-phosphorylated and unphosphorylated forms of melanocytic isoforms of microphthalmia (Mi) transcription factor. 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. It reacts with both melanocytic as well as the non-melanocytic isoforms of MiTF. This Ab does not cross-react with other b-HLH-ZIP factors by DNA mobility shift assay. Mi is a basic helix-loop-helix-leucine zipper (b-HLH-ZIP) transcription factor implicated in pigmentation, mast cells and bone development. The mutation of MiTF 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. These melanocyte isoforms have been shown by two dimensional tryptic mapping to differ in c-Kit-induced phosphorylation. Osteopetrotic rat strain harbors a large genomic deletion encompassing the 3' half of MiTF including most of the b-HLH-ZIP region. Osteoclasts from these animals lack MiTF protein in contrast to wild-type rat, mouse, and human osteoclasts.

IMMUNOGEN

Hybridoma produced by the fusion of splenocytes from RBF/DnJ mice immunized with an N-terminal fragment of human microphthalmia protein and mouse myeloma NS1 cells.

Immunohistochemical staining using microphthalmia antibody on formalin fixed, paraffin embedded human melanoma.



ORDERING INFORMATION

CATALOG NUMBER
X2398M

SIZE

100 µg

FORM

Unconjugated

HOST/CLONE

Mouse Clone C5/D5 Cocktail

FORMULATION

Provided as solution in phosphate buffered saline with 0.08% sodium azide

CONCENTRATION

See vial for concentration

ISOTYPE

IgG1/IgG1

APPLICATIONS

Immunohistochemistry (Frozen & Paraffin Sections)

SPECIES REACTIVITY

Human, Mouse, Rat

ACCESSION NUMBER

Human O75030

POSITIVE CONTROL/TISSUE EXPRESSION

501 Mel human melanoma cells, wild-type human, rat, mouse osteoclast cells

COMMENTS

This antibody cocktail of clone C5 and D5 can be used for gel supershift assays, immunoprecipitation (2 μ g/mg of protein lysate), Western blotting (1 μ g/ml) and immunohistochemistry on frozen and formalin/paraffin tissue sections. Optimal concentration should be evaluated by serial dilutions.

PURIFICATION

Protein A/G Chromatography

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

STORAGE CUSTOMER

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

1. Weilbaecher KN, et. al. Age-resolving osteopetrosis: a rat model implicating microphthalmia and the related transcription factor TFE3. J. Exp.Med. 1998, 187: 775-785
2. Hemesath P, et. al. MAP kinase links the transcription factor microphthalmia to c-Kit signalling in melanocytes. Nature. 1998, 391:298-301

PRODUCT SPECIFIC REFERENCES