

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MITF in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human MITF Val119-Lys289 Accession # O75030
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

MITF (Microphthalmia-associated transcription factor) is a member of the MiT/TFE family of molecules. Although it has a predicted MW of 58 kDa, it runs anomalously in SDS-PAGE at 57-66 kDa. MITF-A1 is found in melanocytes and RPEs where it regulates melanin synthesis via tyrosinase and TRP-1 gene expression. Human MITF-A1 is 526 amino acids (aa) in length. It contains a bHLH DNA binding region (aa 309-369) and a Leu-zipper domain (aa 374-395). There are three phosphorylation sites at Ser54/405/414, and two SUMOylation sites at Arg289/423. MITF-A1 acts as either a homodimer, or heterodimer with TFE3, TFEB or TFEC. Multiple splice variants exist, with each variant expressing one of two isoforms that are defined by the presence (#1), or absence (#2), of aa 294-299. One variant has a deletion of aa 139-194, a second has an 11 aa substitution for aa 1-118, and three others show variable substitutions over aa 1-35. Over aa 119-289, human MITF-A1 shares 96% aa identity with mouse MITF-A1.

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