

MATP (F-4): sc-377397

BACKGROUND

The membrane-associated transporter protein (MATP) is a 530 amino acid protein that spans the lipid bilayer 12 times. MATP is a melanocyte differentiation antigen that is expressed in a high percentage of melanoma cell lines. MATP is transcriptionally modulated by MITF, a melanocyte-specific transcription factor that may act indirectly or bind to a remote regulatory sequence. MATP may play a role in skin cancer, as its gene is expressed in a high percentage of melanoma cell lines, but not at significant levels in normal tissues. Mutations in the MATP gene have also been linked to albinism.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606202. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Baxter, L.L. and Pavan, W.J. 2002. The oculocutaneous albinism type IV gene MATP is a new marker of pigment cell precursors during mouse embryonic development. *Mech. Dev.* 116: 209-212.
3. Rundshagen, U., et al. 2004. Mutations in the MATP gene in albinism type 4. *Hum. Mutat.* 23: 106-110.
4. Yuasa, I., et al. 2004. MATP polymorphisms in Germans marker for Caucasoids. *Int. J. Legal Med.* 118: 364-366.
5. Blalock, J.E. 2005. The immune system as the sixth sense. *J. Intern. Med.* 257: 126-138.
6. Graf, J., et al. 2005. Single nucleotide polymorphisms in the MATP gene are associated with human pigmentation variation. *Hum. Mutat.* 25: 278-284.

CHROMOSOMAL LOCATION

Genetic locus: SLC45A2 (human) mapping to 5p13.2; Slc45a2 (mouse) mapping to 15 A1.

SOURCE

MATP (F-4) is a mouse monoclonal antibody raised against amino acids 111-240 mapping within an internal region of MATP of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MATP (F-4) is available conjugated to agarose (sc-377397 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377397 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377397 PE), fluorescein (sc-377397 FITC), Alexa Fluor[®] 488 (sc-377397 AF488), Alexa Fluor[®] 546 (sc-377397 AF546), Alexa Fluor[®] 594 (sc-377397 AF594) or Alexa Fluor[®] 647 (sc-377397 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-377397 AF680) or Alexa Fluor[®] 790 (sc-377397 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

MATP (F-4) is recommended for detection of MATP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MATP siRNA (h): sc-60986, MATP siRNA (m): sc-60987, MATP shRNA Plasmid (h): sc-60986-SH, MATP shRNA Plasmid (m): sc-60987-SH, MATP shRNA (h) Lentiviral Particles: sc-60986-V and MATP shRNA (m) Lentiviral Particles: sc-60987-V.

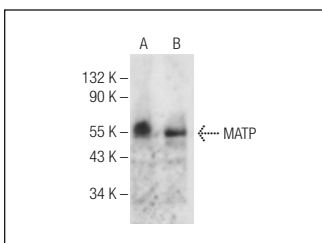
Molecular Weight of MATP: 58 kDa.

Positive Controls: SK-MEL-28 cell lysate: sc-2236, C32 whole cell lysate: sc-2205 or B16-F0 cell lysate: sc-2298.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



MATP (F-4): sc-377397. Western blot analysis of MATP expression in SK-MEL-28 (A) and B16-F0 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Bin, B.H., et al. 2015. Membrane-associated transporter protein (MATP) regulates melanosomal pH and influences tyrosinase activity. *PLoS ONE* 10: e0129273.

RESEARCH USE

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

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