

MATP (H-130): sc-134598

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

- 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.
- 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/>
- Rundshagen, U., Zühlke, C., Opitz, S., Schwinger, E. and Käsmann-Kellner, B. 2004. Mutations in the MATP gene in five German patients affected by oculocutaneous albinism type 4. *Hum. Mutat.* 23: 106-110.
- Yuasa, I., Umetsu, K., Watanabe, G., Nakamura, H., Endoh, M. and Irizawa, Y. 2004. MATP polymorphisms in Germans and Japanese: the L374F mutation as a population marker for Caucasoids. *Int. J. Legal Med.* 118: 364-366.
- Blalock, J.E. 2005. The immune system as the sixth sense. *J. Intern. Med.* 257: 126-138.
- Graf, J., Hodgson, R. and van Daal, A. 2005. Single nucleotide polymorphisms in the MATP gene are associated with normal human pigmentation variation. *Hum. Mutat.* 25: 278-284.
- Inagaki, K., Suzuki, T., Ito, S., Suzuki, N., Fukai, K., Horiuchi, T., Tanaka, T., Manabe, E. and Tomita, Y. 2005. OCA4: evidence for a founder effect for the p.D157N mutation of the MATP gene in Japanese and Korean. *Pigment Cell Res.* 18: 385-388.
- Suzuki, T., Inagaki, K., Fukai, K., Obana, A., Lee, S.T. and Tomita, Y. 2005. A Korean case of oculocutaneous albinism type IV caused by a D157N mutation in the MATP gene. *Br. J. Dermatol.* 152: 174-175.

CHROMOSOMAL LOCATION

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

SOURCE

MATP (H-130) is a rabbit polyclonal antibody raised against amino acids 111-240 mapping within an internal region of MATP of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MATP (H-130) is recommended for detection of MATP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

MATP (H-130) is also recommended for detection of MATP in additional species, including porcine.

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 A-375 cell lysate: sc-3811.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


 MONOS
 Satisfaction
 Guaranteed

Try **MATP (F-4): sc-377397** or **MATP (7K-2): sc-100780**, our highly recommended monoclonal alternatives to MATP (H-130).