

MFF (m): 293T Lysate: sc-121620

BACKGROUND

MFF (mitochondrial fission factor), also known as GL004, AD030 or AD033, is a 342 amino acid single-pass type IV membrane protein of the mitochondrial outer membrane that belongs to the tango11 family. Involved in mitochondrial and peroxisomal fission, MFF is abundantly expressed in stomach, heart, muscle, liver, brain and kidney. MFF exists as five alternatively spliced isoforms that are encoded by a gene that maps to human chromosome 2q36.3. As the second largest human chromosome, chromosome 2 consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2. Harlequin ichthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene. The lipid metabolic disorder sitosterolemia is associated with ABCG5 and ABCG8. An extremely rare recessive genetic disorder, Alström syndrome, is due to mutations in the ALMS1 gene.

REFERENCES

1. Patel, S.B., et al. 1998. Mapping a gene involved in regulating dietary cholesterol absorption. The sitosterolemia locus is found at chromosome 2p21. *J. Clin. Invest.* 102: 1041-1044.
2. Zumsteg, U., et al. 2000. Alstrom syndrome: confirmation of linkage to chromosome 2p12-13 and phenotypic heterogeneity in three affected sibs. *J. Med. Genet.* 37: E8.
3. Shulenin, S., et al. 2001. An ATP-binding cassette gene (ABCG5) from the ABCG (white) gene subfamily maps to human chromosome 2p21 in the region of the Sitosterolemia locus. *Cytogenet. Cell Genet.* 92: 204-208.
4. Hearn, T., et al. 2002. Mutation of ALMS1, a large gene with a tandem repeat encoding 47 amino acids, causes Alström syndrome. *Nat. Genet.* 31: 79-83.
5. Kelsell, D.P., et al. 2005. Mutations in ABCA12 underlie the severe congenital skin disease harlequin ichthyosis. *Am. J. Hum. Genet.* 76: 794-803.
6. Gandre-Babbe, S. and van der Bliek, A.M. 2008. The novel tail-anchored membrane protein Mff controls mitochondrial and peroxisomal fission in mammalian cells. *Mol. Biol. Cell* 19: 2402-2412.
7. Igci, Y.Z., et al. 2011. Differential expression of a set of genes in follicular and classic variants of papillary thyroid carcinoma. *Endocr. Pathol.* 22: 86-96.

CHROMOSOMAL LOCATION

Genetic locus: MFF (human) mapping to 2q36.3.

PRODUCT

MFF (m): 293T Lysate represents a lysate of mouse MFF transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

MFF (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive MFF antibodies. Recommended use: 10-20 µl per lane.

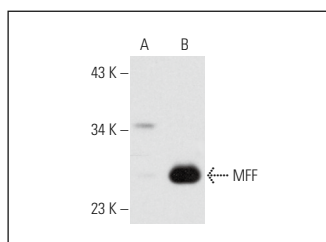
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

MFF (C-11): sc-515664 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse MFF expression in MFF transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

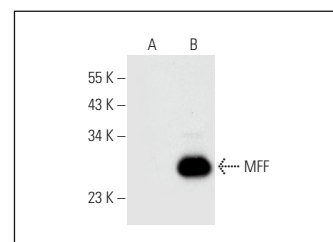
RECOMMENDED SUPPORT REAGENTS

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.

DATA



MFF (C-11): sc-515664. Western blot analysis of MFF expression in non-transfected: sc-117752 (A) and mouse MFF transfected: sc-121620 (B) 293T whole cell lysates.



MFF (B-2): sc-398617. Western blot analysis of MFF expression in non-transfected: sc-117752 (A) and mouse MFF transfected: sc-121620 (B) 293T whole cell lysates.

PROTOCOLS

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