SANTA CRUZ BIOTECHNOLOGY, INC.

MPPED2 (NQ-A35): sc-134391

BACKGROUND

MPPED2 (metallophosphoesterase domain-containing protein 2), also known as C11orf8, FAM1B or 239FB, is a 294 amino acid protein. Expressed primarily in fetal brain tissue, MPPED2 is encoded by a gene that maps to chromosome 11. With approximately 135 million base pairs and 1,400 genes, chromosome 11 makes up around 4% of human genomic DNA and is considered a gene and disease-association dense chromosome. The chromosome 11 encoded Atm gene is important for regulation of cell cycle arrest and apoptosis following double stranded DNA breaks. Atm mutation leads to the disorder known as ataxia-telangiectasia. The blood disorders sickle cell anemia and thalassemia are caused by HBB gene mutations, while Wilms' tumors, WAGR syndrome and Denys-Drash syndrome are associated with mutations of the WT1 gene. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are also associated with defects in chromosome 11.

REFERENCES

1. Schwartz, F., et al. 1994. A WAGR region gene between Pax-6 and FSHB expressed in fetal brain. Hum. Genet. 94: 658-664.
2. Schwartz, F., et al. 1995. cDNA sequence, genomic organization, and evolutionary conservation of a novel gene from the WAGR region. Genomics 29: 526-532.
3. Schwartz, F., et al. 1997. The 239AB gene on chromosome 22: a novel member of an ancient gene family. Gene 194: 57-62.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 600911. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Grossfeld, P.D., et al. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. Am. J. Med. Genet. A 129A: 51-61.
6. Loussouarn, G., et al. 2006. KCNQ1 K^+ channel-mediated cardiac channelopathies. Methods Mol. Biol. 337: 167-183.
7. Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. Nature 440: 497-500.
8. Zehelein, J., et al. 2006. Skipping of Exon 1 in the KCNQ1 gene causes Jervell and Lange-Nielsen syndrome. J. Biol. Chem. 281: 35397-35403.
9. Ataga, K.I., et al. 2007. β-thalassaemia and sickle cell anaemia as paradigms of hypercoagulability. Br. J. Haematol. 139: 3-13.

CHROMOSOMAL LOCATION

Genetic locus: MPPED2 (human) mapping to 11p14.1; Mpped2 (mouse) mapping to 2 E3.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

SOURCE

MPPED2 (NQ-A35) is a mouse monoclonal antibody raised against recombinant MPPED2 protein of human origin.

PRODUCT

Each vial contains 200 µl ascites containing IgM with < 0.1% sodium azide.

APPLICATIONS

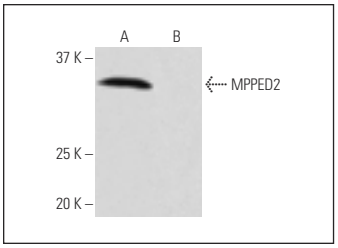
MPPED2 (NQ-A35) is recommended for detection of MPPED2 of mouse, rat and human origin by Western Blotting (starting dilution: to be determined by researcher, dilution range 1:100-1:5000), immunoprecipitation [1-2 µl per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:30-1:5000).

Suitable for use as control antibody for MPPED2 siRNA (h): sc-96737, MPPED2 siRNA (m): sc-149541, MPPED2 shRNA Plasmid (h): sc-96737-SH, MPPED2 shRNA Plasmid (m): sc-149541-SH, MPPED2 shRNA (h) Lentiviral Particles: sc-96737-V and MPPED2 shRNA (m) Lentiviral Particles: sc-149541-V.

Molecular Weight of MPPED2: 33 kDa.

Positive Controls: human MPPED2 transfected 293T whole cell lysate.

DATA



MPPED2 (NQ-A35): sc-134391. Western blot analysis of MPPED2 expression in human MPPED2 transfected (**A**) and non-transfected (**B**) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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