

MOSPD1 (G-7): sc-514079

BACKGROUND

MOSPD1 (motile sperm domain-containing protein 1) is a 213 amino acid multi-pass membrane protein that contains one MSP domain and exists as 3 alternatively spliced isoforms. The gene encoding MOSPD1 maps to human chromosome Xq26.3. The X and Y chromosomes are the human sex chromosomes. Chromosome X consists of about 153 million base pairs and nearly 1,000 genes. The combination of an X and Y chromosome lead to normal male development while two copies of X lead to normal female development. There are a number of conditions related to an unusual number and combination of sex chromosomes being inherited, including Turner's syndrome, Klinefelter's syndrome and Triple X syndrome. Color blindness, hemophilia, and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently as males carry a single X chromosome.

REFERENCES

1. Gianfrancesco, F., et al. 2001. Differential divergence of three human pseudoautosomal genes and their mouse homologs: implications for sex chromosome evolution. *Genome Res.* 11: 2095-2100.
2. Bernardino-Sgherri, J., et al. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. *Cytogenet. Genome Res.* 99: 85-91.
3. Pall, G.S., et al. 2004. A novel transmembrane MSP-containing protein that plays a role in right ventricle development. *Genomics* 84: 1051-1059.
4. Deeb, S.S. 2005. The molecular basis of variation in human color vision. *Clin. Genet.* 67: 369-377.

CHROMOSOMAL LOCATION

Genetic locus: MOSPD1 (human) mapping to Xq26.3; Mospd1 (mouse) mapping to X A5.

SOURCE

MOSPD1 (G-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-18 at the N-terminus of MOSPD1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MOSPD1 (G-7) is available conjugated to agarose (sc-514079 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514079 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514079 PE), fluorescein (sc-514079 FITC), Alexa Fluor® 488 (sc-514079 AF488), Alexa Fluor® 546 (sc-514079 AF546), Alexa Fluor® 594 (sc-514079 AF594) or Alexa Fluor® 647 (sc-514079 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514079 AF680) or Alexa Fluor® 790 (sc-514079 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514079 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

MOSPD1 (G-7) is recommended for detection of MOSPD1 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 MOSPD1 siRNA (h): sc-91308, MOSPD1 siRNA (m): sc-149512, MOSPD1 shRNA Plasmid (h): sc-91308-SH, MOSPD1 shRNA Plasmid (m): sc-149512-SH, MOSPD1 shRNA (h) Lentiviral Particles: sc-91308-V and MOSPD1 shRNA (m) Lentiviral Particles: sc-149512-V.

Molecular Weight of MOSPD1 isoforms: 24/18/24 kDa.

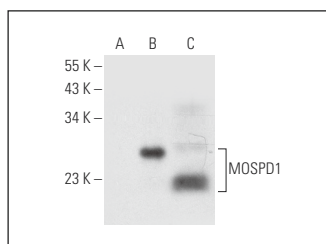
Positive Controls: MOSPD1 (m): 293T Lysate: sc-121721 or SW480 cell lysate: sc-2219.

RECOMMENDED SUPPORT REAGENTS

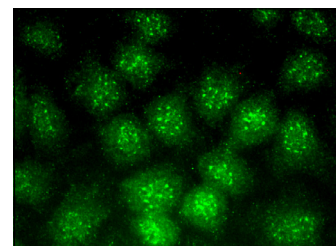
To ensure optimal results, the following support reagents are recommended:

- 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



MOSPD1 (G-7): sc-514079. Western blot analysis of MOSPD1 expression in non-transfected 293T: sc-117752 (A), mouse MOSPD1 transfected 293T: sc-121721 (B) and SW480 (C) whole cell lysates.



MOSPD1 (G-7): sc-514079. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

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.

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