

DSN1 (Q-16): sc-85549

BACKGROUND

DSN1, also known as MIS13, is a 356 amino acid protein that is associated with the kinetochore and functions as a component of the MIS12 protein complex that works to ensure proper kinetochore formation and spindle checkpoint activity. Expressed as multiple alternatively spliced isoforms, DSN1 is also required for correct chromosome alignment during metaphase. The gene encoding DSN1 maps to human chromosome 20. Comprising approximately 2% of the human genome, chromosome 20 contains nearly 63 million bases that encode over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome.

REFERENCES

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2. Pinsky, B.A., et al. 2003. An Mtw1 complex promotes kinetochore biorientation that is monitored by the iPL1/Aurora protein kinase. *Dev. Cell* 5: 735-745.
3. Cheeseman, I.M., et al. 2004. A conserved protein network controls assembly of the outer kinetochore and its ability to sustain tension. *Genes Dev.* 18: 2255-2268.
4. Obuse, C., et al. 2004. A conserved MIS12 centromere complex is linked to heterochromatic HP1 and outer kinetochore protein Zwint-1. *Nat. Cell Biol.* 6: 1135-1141.
5. Kline, S.L., et al. 2006. The human MIS12 complex is required for kinetochore assembly and proper chromosome segregation. *J. Cell Biol.* 173: 9-17.
6. Nousiainen, M., et al. 2006. Phosphoproteome analysis of the human mitotic spindle. *Proc. Natl. Acad. Sci. USA* 103: 5391-5396.

CHROMOSOMAL LOCATION

Genetic locus: DSN1 (human) mapping to 20q11.23; Dsn1 (mouse) mapping to 2 H1.

SOURCE

DSN1 (Q-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DSN1 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.

Blocking peptide available for competition studies, sc-85549 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

PROTOCOLS

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

APPLICATIONS

DSN1 (Q-16) is recommended for detection of DSN1 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).

Suitable for use as control antibody for DSN1 siRNA (h): sc-77188, DSN1 siRNA (m): sc-143178, DSN1 shRNA Plasmid (h): sc-77188-SH, DSN1 shRNA Plasmid (m): sc-143178-SH, DSN1 shRNA (h) Lentiviral Particles: sc-77188-V and DSN1 shRNA (m) Lentiviral Particles: sc-143178-V.

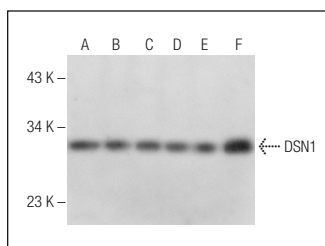
Molecular Weight of DSN1 isoforms 1/2: 40/33 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Jurkat nuclear extract: sc-2132 or NIH/3T3 nuclear extract: sc-2138.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



DSN1 (Q-16): sc-85549. Western blot analysis of DSN1 expression in HeLa (A), Jurkat (B), NIH/3T3 (C), CCRF-CEM (D) and IMR-32 (E) nuclear extracts and mouse brain tissue extract (F).

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.