SANTA CRUZ BIOTECHNOLOGY, INC.

MISP (C-17): sc-241249

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Proper mitotic spindle assembly during cell division and chromosome segregation is crucial for organism development. Incorrect positioning of the mitotic spindle may cause cell death or lead to various debilitating diseases. MISP (mitotic spindle positioning), also known as C19orf21, is a 679 amino acid actin cytoskeleton and focal adhesions associated protein that is involved in mitotic spindle orientation and mitotic progression. Consisting of multiple actin-binding sites, MISP is suggested to regulate the distribution of Dynactin at the cell cortex, thereby stabilizing cortical and astral microtubule attachments required for proper mitotic spindle positioning. Dynactin is a multisubunit complex and a required cofactor for most, or all, of the cellular processes powered by the microtubule-based motor cytoplasmic dynein. MISP is encoded by a gene located on human chromosome 19p13.3.

REFERENCES

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3. Noatynska, A., Gotta, M. and Meraldi, P. 2012. Mitotic spindle (DIS)orientation and DISease: cause or consequence? J. Cell Biol. 199: 1025-1035.
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5. Nain, A.S. and Cimini, D. 2013. MISP: The missing link between extracellular matrix and astral microtubules. Cell Cycle 12: 1821-1822.
6. Zhu, M., Settele, F., Kotak, S., Sanchez-Pulido, L., Ehret, L., Ponting, C.P., Gönczy, P. and Hoffmann, I. 2013. MISP is a novel Plk1 substrate required for proper spindle orientation and mitotic progression. J. Cell Biol. 200: 773-787.
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CHROMOSOMAL LOCATION

Genetic locus: MISP (human) mapping to 19p13.3.

SOURCE

MISP (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MISP of human origin.

STORAGE

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

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-241249 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

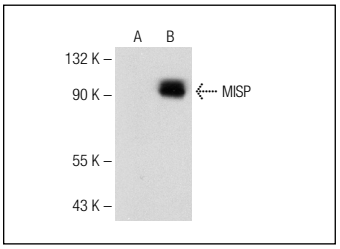
MISP (C-17) is recommended for detection of MISP of human and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MISP siRNA (h): sc-97747, MISP shRNA Plasmid (h): sc-97747-SH and MISP shRNA (h) Lentiviral Particles: sc-97747-V.

Molecular Weight of MISP: 75 kDa.

Positive Controls: MISP (h): 293T Lysate: sc-115580.

DATA



MISP (C-17): sc-241249. Western blot analysis of MISP expression in non-transfected: sc-117752 (**A**) and human MISP transfected: sc-115580 (**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 or our catalog for detailed protocols and support products.