

MISP (P-16): sc-241250

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.
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7. Kumeta, M., Gilmore, J.L., Umeshima, H., Ishikawa, M., Kitajiri, S., Horigome, T., Kengaku, M. and Takeyasu, K. 2014. Caprice/MISP is a novel F-actin bundling protein critical for actin-based cytoskeletal reorganizations. *Genes Cells* 19: 338-349.
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CHROMOSOMAL LOCATION

Genetic locus: MISP (mouse) mapping to 10 C1.

SOURCE

MISP (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MISP of mouse origin.

RESEARCH USE

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

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-241250 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MISP (P-16) is recommended for detection of MISP of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (m): sc-140517, MISP shRNA Plasmid (m): sc-140517-SH and MISP shRNA (m) Lentiviral Particles: sc-140517-V.

Molecular Weight of MISP: 72 kDa.

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) 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.

STORAGE

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

PROTOCOLS

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