SANTA CRUZ BIOTECHNOLOGY, INC.

Mcsp (M-13): sc-240904

BACKGROUND

Sperm mitochondria differ from somatic cell mitochondria in that they are flattened, elongated and arranged to form a helical coiled sheath in the mid-piece of the sperm flagellum. SMCP (sperm mitochondria-associated cysteine-rich protein), also known as MCS or MCSP, is a 116 amino acid cytoplasmic protein that is found in the outer capsule that is associated with sperm mitochondria. Expressed specifically in spermatids of seminiferous tubules, SMCP is thought to be involved in the organization and stabilization of the helical sheath structure and may play a role in overall sperm motility. SMCP has a short N-terminal segment, a C-terminal lysine and several internal cysteines. Defects in the gene encoding SMCP may be a cause of male infertility due to both reduced sperm motility and an inability to pierce the zona pellucida of the female egg.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Smcp (mouse) mapping to 3 F1.

RESEARCH USE

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

SOURCE

Mcsp (M-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Mcsp of mouse 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-240904 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Mcsp (M-13) is recommended for detection of Mcsp of mouse 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 Mcsp siRNA (m): sc-149322, Mcsp shRNA Plasmid (m): sc-149322-SH and Mcsp shRNA (m) Lentiviral Particles: sc-149322-V.

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.