

# SPAG4 (K-12): sc-85926

## BACKGROUND

Mammalian sperm flagellum contain two cytoskeletal structures associated with the the axoneme: the outer dense fibers and the fibrous sheath. The outer dense fibers surround the axoneme in the midpiece and principal piece, whereas the fibrous sheath surrounds outer dense fibers of the tail of the principal piece. SPAG4 (sperm associated antigen 4), also known as outer dense fiber-associated protein SPAG4, is a 427 amino acid multi-pass membrane protein that may play a role in the organization and assembly of outer dense fibers (ODFs). Existing as a homodimer, SPAG4 interacts with Odf1 and is suggested to associate with microtubules. SPAG4 localizes to the transient manchette and axoneme of elongating spermatids and epididymal sperm. Containing one SUN domain, SPAG4 is considered a potential cancer marker.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: SPAG4 (human) mapping to 20q11.22; Spag4 (mouse) mapping to 2 H1.

## RESEARCH USE

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

## SOURCE

SPAG4 (K-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SPAG4 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-85926 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SPAG4 (K-12) is recommended for detection of SPAG4 of mouse, rat and human 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); non cross-reactive with SPAG1, SPAG5, and SPAG11B.

SPAG4 (K-12) is also recommended for detection of SPAG4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SPAG4 siRNA (h): sc-76544, SPAG4 siRNA (m): sc-153705, SPAG4 shRNA Plasmid (h): sc-76544-SH, SPAG4 shRNA Plasmid (m): sc-153705-SH, SPAG4 shRNA (h) Lentiviral Particles: sc-76544-V and SPAG4 shRNA (m) Lentiviral Particles: sc-153705-V.

Molecular Weight of SPAG4: 49 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

## 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.



Try **SPAG4 (H-6): sc-393115**, our highly recommended monoclonal alternative to SPAG4 (K-12).