

# SPANX-N4 (K-12): sc-138637

## BACKGROUND

A variety of morphological and molecular changes are required for mature spermatozoa formation. These steps are temporally guided by the transcription and translation of several testis-specific genes. SPANX (sperm protein associated with the nucleus, X-linked) family members are sperm- and testis-specific proteins whose genes form a cluster on chromosome X. Sharing a high level of sequence similarity, SPANX-A, -B, -C, -D and -E localize to both cytoplasm and nucleus where they are associated with nuclear craters. SPANX-N4 (sperm protein associated with the nucleus on the X chromosome N4) is a 99 amino acid protein belonging to the SPAN-X family and is one of four subgroups of SPANX-N, an ancestral form of SPAN-X.

## REFERENCES

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- Westbrook, V.A., et al. 2004. Genomic organization, incidence, and localization of the SPAN-x family of cancer-testis antigens in melanoma tumors and cell lines. *Clin. Cancer Res.* 10: 101-112.
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- Kouprina, N., et al. 2005. Dynamic structure of the SPANX gene cluster mapped to the prostate cancer susceptibility locus HPCX at Xq27. *Genome Res.* 15: 1477-1486.
- Westbrook, V.A., et al. 2006. Hominoid-specific SPANXA/D genes demonstrate differential expression in individuals and protein localization to a distinct nuclear envelope domain during spermatid morphogenesis. *Mol. Hum. Reprod.* 12: 703-716.
- Kouprina, N., et al. 2007. Evolutionary diversification of SPANX-N sperm protein gene structure and expression. *PLoS ONE* 2: e359.
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## CHROMOSOMAL LOCATION

Genetic locus: SPANXN4 (human) mapping to Xq27.3.

## SOURCE

SPANX-N4 (K-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SPANX-N4 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-138637 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SPANX-N4 (K-12) is recommended for detection of SPANX-N4 of 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 other SPANX-N family members.

Suitable for use as control antibody for SPANX-N4 siRNA (h): sc-90880, SPANX-N4 shRNA Plasmid (h): sc-90880-SH and SPANX-N4 shRNA (h) Lentiviral Particles: sc-90880-V.

Molecular Weight of SPANX-N4: 17 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.