

# SP17 (N-17): sc-66643

## BACKGROUND

SP17 (sperm protein 17) also known as SPA17 (sperm autoantigenic protein 17), SP17-1 or CT22 (cancer/testis antigen 22) is a sperm surface peripheral membrane protein. It is predominantly expressed in testis and contains two heparan binding motifs and a C-terminal calmodulin (CaM)-binding domain. SP17 exists as a homodimer and localizes to the head and tail of spermatozoa. Residing in the fibrous sheath of the tail, SP17 interacts, via its N-terminus, with AKAP 3 and may play an important signaling role in this PKA-independent AKAP complex. Localizing to the cytoplasm of the head of spermatozoa, SP17 can bind to the zona pellucida of the oocyte with high affinity, suggesting a role in fertilization. In addition, SP17 has been identified as a cancer/testis antigen and is expressed in ovarian cancer and multiple myeloma. This suggests that SP17 could be suitable as a target in tumor immunotherapy.

## REFERENCES

1. Frayne, J. and Hall, L. 2002. A re-evaluation of sperm protein (SP17) indicates a regulatory role in an A-kinase anchoring protein complex, rather than a unique role in sperm-zona pellucida binding. *Reproduction* 124: 767-774.
2. Takeoka, Y., et al. 2002. Developmental considerations of sperm protein 17 gene expression in rheumatoid arthritis synoviocytes. *Dev. Immunol.* 9: 97-102.
3. Grizzi, F., et al. 2003. Immunolocalization of sperm protein 17 in human testis and ejaculated spermatozoa. *J. Histochem. Cytochem.* 51: 1245-1248.
4. Wang, Z., et al. 2004. SP17 gene expression in myeloma cells is regulated by promoter methylation. *Br. J. Cancer* 91: 1597-1603.
5. Lea, I.A., et al. 2004. Association of sperm protein 17 with A-kinase anchoring protein 3 in flagella. *Reprod. Biol. Endocrinol.* 2: 57.
6. Grizzi, F., et al. 2004. Sperm protein 17 is expressed in human somatic ciliated epithelia. *J. Histochem. Cytochem.* 52: 549-554.

## CHROMOSOMAL LOCATION

Genetic locus: SPA17 (human) mapping to 11q24.2; Spa17 (mouse) mapping to 9 A4.

## SOURCE

SP17 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SP17 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-66643 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

SP17 (N-17) is recommended for detection of SP17 of mouse, rat and human 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).

SP17 (N-17) is also recommended for detection of SP17 in additional species, including equine, canine, bovine and porcine.

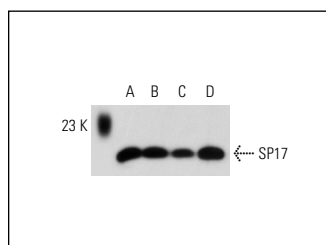
Suitable for use as control antibody for SP17 siRNA (h): sc-63052, SP17 siRNA (m): sc-63053, SP17 shRNA Plasmid (h): sc-63052-SH, SP17 shRNA Plasmid (m): sc-63053-SH, SP17 shRNA (h) Lentiviral Particles: sc-63052-V and SP17 shRNA (m) Lentiviral Particles: sc-63053-V.

Molecular Weight of SP17 triplet: 22/25 kDa.

Molecular Weight of SP17 dimer: 54 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, ES-2 cell lysate: sc-24674 or U266 whole cell lysate: sc-364800.

## DATA



SP17 (N-17): sc-66643. Western blot analysis of SP17 expression in HeLa (A), ES-2 (B), NTERA-2 cl.D1 (C) and U266 (D) whole cell lysates.

## 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.



Try **SP17 (21): sc-136454** or **SP17 (C-3): sc-374507**, our highly recommended monoclonal alternatives to SP17 (N-17).