SANTA CRUZ BIOTECHNOLOGY, INC.

SPERT (Q-20): sc-84616

BACKGROUND

A variety of morphological and molecular changes are required for spermatozoa formation. These steps are temporally guided by the transcription and translation of several testis-specific genes. SPERT (spermatid associated), also known as CBY2 (chibby homolog 2), spermatid flower-like structure protein or NURIT, is a 448 amino acid novel leucine-zipper protein belonging to the chibby family of proteins. Expressed uniquely in the spermatid flower-like structure, SPERT interacts with Nek1, a member of the NIMA-family kinase family that is associated centrosomal stability and ciliogenesis. Containing a leucine-zipper motif and two coiled-coil regions, SPERT is transcribed through the elongation stage of the spermatids. SPERT is absent from mature spermatozoa and is thought to be involved in transporting proteins that are to be discarded via the residual bodies.

REFERENCES

1. Alber, T. 1992. Structure of the leucine zipper. Curr. Opin. Genet. Dev. 2: 205-210.
2. Baxevanis, A.D. and Vinson, C.R. 1993. Interactions of coiled coils in transcription factors: where is the specificity? Curr. Opin. Genet. Dev. 3: 278-285.
3. Feige, E., Chen, A. and Motro, B. 2002. Nurit, a novel leucine-zipper protein, expressed uniquely in the spermatid flower-like structure. Mech. Dev. 117: 369-377.
4. White, M.C. and Quarmby, L.M. 2008. The NIMA-family kinase, Nek1 affects the stability of centrosomes and ciliogenesis. BMC Cell Biol. 9: 29.
5. Hilton, L.K., White, M.C. and Quarmby, L.M. 2009. The NIMA-related kinase Nek1 cycles through the nucleus. Biochem. Biophys. Res. Commun. 389: 52-56.

CHROMOSOMAL LOCATION

Genetic locus: SPERT (human) mapping to 13q14.11; Spert (mouse) mapping to 14 D3.

SOURCE

SPERT (Q-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of SPERT of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84616 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.

RESEARCH USE

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

APPLICATIONS

SPERT (Q-20) is recommended for detection of SPERT 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).

Suitable for use as control antibody for SPERT siRNA (h): sc-76558, SPERT siRNA (m): sc-153750, SPERT shRNA Plasmid (h): sc-76558-SH, SPERT shRNA Plasmid (m): sc-153750-SH, SPERT shRNA (h) Lentiviral Particles: sc-76558-V and SPERT shRNA (m) Lentiviral Particles: sc-153750-V.

Molecular Weight of SPERT: 52 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

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