

SPNR (G-14): sc-160838

BACKGROUND

Spermatogenesis is the process by which male spermatogonia develop into mature spermatozoa. The spermatid perinuclear RNA-binding protein (SPNR), also designated STRBP, is a microtubule-associated RNA-binding protein that localizes to the manchette in developing spermatids and plays a role in the regulation of cell growth. SPNR binds to double-stranded DNA and RNA, most efficiently to poly(I:C) RNA than to poly(dI:dC) DNA. It also binds to single-stranded poly(G) RNA and non-specifically to the mRNA PRM1 3'-UTR and adenovirus VA RNA. SPNR is a 672 amino acid protein that contains 2 DRBM (double-stranded RNA-binding) domains and one DZF domain. Existing as two isoforms, SPNR is expressed at high levels in testis, ovary and brain.

REFERENCES

1. Dadoune, J.P. 1994. The cellular biology of mammalian spermatids: a review. *Bull. Assoc. Anat.* 78: 33-40.
2. Schumacher, J.M., et al. 1995. Spnr, a murine RNA-binding protein that is localized to cytoplasmic microtubules. *J. Cell Biol.* 129: 1023-1032.
3. Schumacher, J.M., et al. 1998. Spermatid perinuclear ribonucleic acid-binding protein binds microtubules *in vitro* and associates with abnormal manchettes *in vivo* in mice. *Biol. Reprod.* 59: 69-76.
4. Pires-daSilva, A., et al. 2001. Mice deficient for spermatid perinuclear RNA-binding protein show neurologic, spermatogenic, and sperm morphological abnormalities. *Dev. Biol.* 233: 319-328.
5. Toshimori, K., et al. 2001. Protein expression and cell organelle behavior in spermatogenic cells. *Kaibogaku Zasshi* 76: 267-279.
6. Kierszenbaum, A.L. 2002. Intramanchette transport (IMT): managing the making of the spermatid head, centrosome, and tail. *Mol. Reprod. Dev.* 63: 1-4.

CHROMOSOMAL LOCATION

Genetic locus: STRBP (human) mapping to 9q33.3; Strbp (mouse) mapping to 2 B.

SOURCE

SPNR (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SPNR 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-160838 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

SPNR (G-14) is recommended for detection of SPNR 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).

SPNR (G-14) is also recommended for detection of SPNR in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for SPNR siRNA (h): sc-92694, SPNR siRNA (m): sc-153774, SPNR shRNA Plasmid (h): sc-92694-SH, SPNR shRNA Plasmid (m): sc-153774-SH, SPNR shRNA (h) Lentiviral Particles: sc-92694-V and SPNR shRNA (m) Lentiviral Particles: sc-153774-V.

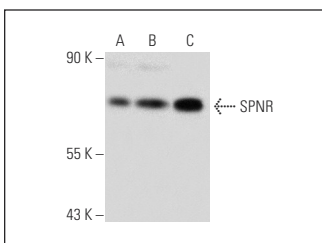
Molecular Weight of SPNR: 71 kDa.

Positive Controls: K-562 nuclear extract: sc-2130, Ramos nuclear extract: sc-2153 or F9 cell lysate: sc-2245.

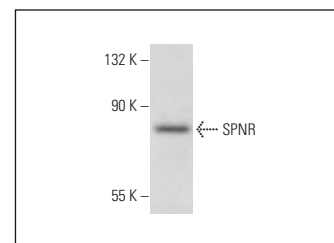
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



SPNR (G-14): sc-160838. Western blot analysis of SPNR expression in K-562 (A) and Ramos (B) nuclear extracts and F9 whole cell lysate (C).



SPNR (G-14): sc-160838. Western blot analysis of SPNR expression in rat cerebellum tissue extract.

RESEARCH USE

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

PROTOCOLS

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