SANTA CRUZ BIOTECHNOLOGY, INC.

ACRV1 (N-16): sc-167040



The Power to Question

BACKGROUND

ACRV1 (acrosomal vesicle protein 1), also known as acrosomal protein SP-10 or SPACA2, is a 265 amino acid protein. ACRV1 is encoded by a gene that maps to human chromosome 11q24.2, at the junction between 11q23 and 11q24. Containing four exons, ACRV1 may experience cryptic splicing and exon skipping. ACRV1 exists as 11 alternatively spliced isoforms and may be involved in sperm-zona binding or penetration. ACRV1 encodes a testis-specific, differentiation antigen, acrosomal vesicle protein 1 that originates in the acrosomal vesicle during spermatogenesis, and is affiliated with acrosomal membranes and mature sperm matrix. ACRV1 is a potential contraceptive vaccine immunogen.

REFERENCES

- Wright, R.M., John, E., Klotz, K., Flickinger, C.J. and Herr, J.C. 1990. Cloning and sequencing of cDNAs coding for the human intra-acrosomal antigen SP-10. Biol. Reprod. 42: 693-701.
- Homyk, M., Anderson, D.J., Wolff, H. and Herr, J.C. 1990. Differential diagnosis of immature germ cells in semen utilizing monoclonal antibody MHS-10 to the intra-acrosomal antigen SP-10. Fertil. Steril. 53: 323-330.
- Herr, J.C., Wright, R.M., Flickinger, C.J., Eddy, R.L. and Shows, T.B. 1991. Assignment of the gene for human intra-acrosomal protein SP-10 to the p12—q13 region of chromosome 11. J. Androl. 12: 281-287.
- Herr, J.C., Klotz, K., Shannon, J., Wright, R.M. and Flickinger, C.J. 1992. Purification and microsequencing of the intra-acrosomal protein SP-10. Evidence that SP-10 heterogeneity results from endoproteolytic processes. Biol. Reprod. 47: 11-20.
- Wright, R.M., Suri, A.K., Kornreich, B., Flickinger, C.J. and Herr, J.C. 1993. Cloning and characterization of the gene coding for the human acrosomal protein SP-10. Biol. Reprod. 49: 316-325.
- Golden, W.L., von Kap-Herr, C., Kurth, B., Wright, R.M., Flickinger, C.J., Eddy, R., Shows, T. and Herr, J.C. 1993. Refinement of the localization of the gene for human intraacrosomal protein SP-10 (ACRV1) to the junction of bands q23→q24 of chromosome 11 by nonisotopic *in situ* hybridization. Genomics 18: 446-449.
- Foster, J.A., Klotz, K.L., Flickinger, C.J., Thomas, T.S., Wright, R.M., Castillo, J.R. and Herr, J.C. 1994. Human SP-10: acrosomal distribution, processing, and fate after the acrosome reaction. Biol. Reprod. 51: 1222-1231.
- Freemerman, A.J., Flickinger, C.J. and Herr, J.C. 1995. Characterization of alternatively spliced human SP-10 mRNAs. Mol. Reprod. Dev. 41: 100-108.
- 9. Reddi, P.P., Shore, A.N., Acharya, K.K. and Herr, J.C. 2002. Transcriptional regulation of spermiogenesis: insights from the study of the gene encoding the acrosomal protein SP-10. J. Reprod. Immunol. 53: 25-36.

CHROMOSOMAL LOCATION

Genetic locus: ACRV1 (human) mapping to 11q24.2.

RESEARCH USE

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

SOURCE

ACRV1 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ACRV1 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-167040 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ACRV1 (N-16) is recommended for detection of ACRV1 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).

Suitable for use as control antibody for ACRV1 siRNA (h): sc-96294, ACRV1 shRNA Plasmid (h): sc-96294-SH and ACRV1 shRNA (h) Lentiviral Particles: sc-96294-V.

Molecular Weight of ACRV1: 28 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) Immunofluo-rescence: 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, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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