SANTA CRUZ BIOTECHNOLOGY, INC.

ACRV1 (A-9): sc-398536

SANTA CRUZ BIOTECHNOLOGY

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

1. Wright, R.M., et al. 1990. Cloning and sequencing of cDNAs coding for the human intra-acrosomal antigen SP-10. Biol. Reprod. 42: 693-701.
2. Homyk, M., et al. 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.
3. Herr, J.C., et al. 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.
4. Herr, J.C., et al. 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.
5. Golden, W.L., et al. 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.

CHROMOSOMAL LOCATION

Genetic locus: Acrv1 (mouse) mapping to 9 A4.

SOURCE

ACRV1 (A-9) is a mouse monoclonal antibody raised against amino acids 138-261 mapping at the C-terminus of ACRV1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ACRV1 (A-9) is available conjugated to agarose (sc-398536 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398536 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398536 PE), fluorescein (sc-398536 FITC), Alexa Fluor® 488 (sc-398536 AF488), Alexa Fluor® 546 (sc-398536 AF546), Alexa Fluor® 594 (sc-398536 AF594) or Alexa Fluor® 647 (sc-398536 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398536 AF680) or Alexa Fluor® 790 (sc-398536 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ACRV1 (A-9) is recommended for detection of ACRV1 of mouse origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for ACRV1 siRNA (m): sc-140825, ACRV1 shRNA Plasmid (m): sc-140825-SH and ACRV1 shRNA (m) Lentiviral Particles: sc-140825-V.

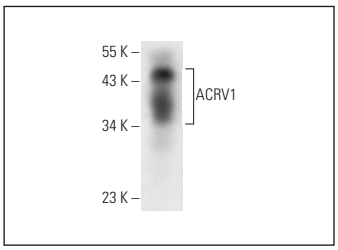
Molecular Weight of ACRV1: 28 kDa.

Positive Controls: mouse testis extract: sc-2405.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ACRV1 (A-9): sc-398536. Western blot analysis of ACRV1 expression in mouse testis tissue extract.

SELECT PRODUCT CITATIONS

1. Katsumata, O., et al. 2017. Cellular and subcellular localization of ADP-ribosylation factor 6 in mouse peripheral tissues. Histochem. Cell Biol. 148: 577-596.
2. Fang, X., et al. 2021. Hypomorphic and hypermorphic mouse models of Fsip2 indicate its dosage-dependent roles in sperm tail and acrosome formation. Development 148: dev199216.

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.