SANTA CRUZ BIOTECHNOLOGY, INC.

VASA (K-14): sc-48705

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

VASA is a 724 amino acid, ATP-dependent RNA helicase that belongs to the DEAD-box family. VASA is specifically expressed in germline cells throughout the life cycle and is undetectable in somatic tissues. In vertebrates, VASA is restricted to bisexually reproducing organisms. It is cytoplasmic and is present only in migratory primordial germ cells in the region of the gonadal ridge. On testicular sections, VASA expression is the highest in spermatogonia, reduced in spermatocytes, low in spermatids and absent in sperm. In the ovary, VASA expression is the highest in oogonia but persists throughout oogenesis. VASA has a glycine-rich N-terminus with multiple repeats of an RGG motif believed to function in RNA binding. Specifically, it regulates the translation of intricate mRNAs that are essential for differentiation.

REFERENCES

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5. Stoop, H., et al. 2005. Differentiation and development of human female germ cells during prenatal gonadogenesis: an immunohistochemical study. Hum. Reprod. 20: 1466-1476.
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CHROMOSOMAL LOCATION

Genetic locus: DDX4 (human) mapping to 5q11.2; Ddx4 (mouse) mapping to 13 D2.2.

SOURCE

VASA (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of VASA 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-48705 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

VASA (K-14) is recommended for detection of VASA 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).

VASA (K-14) is also recommended for detection of VASA in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for VASA siRNA (h): sc-61772, VASA siRNA (m): sc-61773, VASA shRNA Plasmid (h): sc-61772-SH, VASA shRNA Plasmid (m): sc-61773-SH, VASA shRNA (h) Lentiviral Particles: sc-61772-V and VASA shRNA (m) Lentiviral Particles: sc-61773-V.

Molecular Weight of VASA: 83 kDa.

Positive Controls: rat testis extract: sc-2400.

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) 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.

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.

PROTOCOLS

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