SANTA CRUZ BIOTECHNOLOGY, INC.

DAZAP1 (F-5): sc-376208

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

DAZAP1 (deleted in azoospermia-associated protein 1) is a 407 amino acid RNA-binding protein that interacts with DAZ (deleted in azoospermia), a gene with multiple protein products that are deleted in infertile men. Localized to the nucleus of round spermatids and to the cytoplasm of elongated spermatids, DAZAP1 contains two RNP motifs and is thought to be essential for normal spermatogenesis. Binding of DAZAP1 to DAZ mRNA induces translation of DAZ proteins that are required for germ cell development. When DAZAP1 is phosphorylated, it dissociates from DAZ mRNA and prevents proper protein translation, thereby regulating the expression of DAZ proteins. Additionally, DAZAP1 can fuse to the DNA-binding protein MEF-2D; a fusion that disrupts proper signaling pathways and may, therefore, be involved in leukemogenesis. DAZAP1 is expressed predominately in the testis, with weak expression observed in the thymus, heart, liver, brain and pancreas. Two isoforms of DAZAP1 exist due to alternative splicing events.

REFERENCES

1. Tsui, S., et al. 2000. Identification of two novel proteins that interact with germ-cell-specific RNA-binding proteins DAZ and DAZL1. Genomics 65: 266-273.
2. Vera, Y., et al. 2002. Deleted in azoospermia associated protein 1 shuttles between nucleus and cytoplasm during normal germ cell maturation. J. Androl. 23: 622-628.
3. Dai, T., et al. 2003. Characterization of the mouse DAZAP1 gene encoding an RNA-binding protein that interacts with infertility factors DAZ and DAZL. BMC Genomics 2: 6.
4. Prima, V., et al. 2005. Cloning and functional characterization of MEF2D/DAZAP1 and DAZAP1/MEF2D fusion proteins created by a variant t(1;19)(q23;p13.3) in acute lymphoblastic leukemia. Leukemia 19: 806-813.
5. Pan, H.A., et al. 2005. Expression patterns of the DAZ-associated protein DAZAP1 in rat and human ovaries. Fertil. Steril. 84: 1089-1094.
6. Lin, Y.T. and Yen, P.H. 2006. A novel nucleocytoplasmic shuttling sequence of DAZAP1, a testis-abundant RNA-binding protein. RNA 12: 1486-1493.

CHROMOSOMAL LOCATION

Genetic locus: DAZAP1 (human) mapping to 19p13.3; Dazap1 (mouse) mapping to 10 C1.

SOURCE

DAZAP1 (F-5) is a mouse monoclonal antibody raised against amino acids 161-247 mapping within an internal region of DAZAP1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

DAZAP1 (F-5) is recommended for detection of DAZAP1 of mouse, rat and human 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

DAZAP1 (F-5) is also recommended for detection of DAZAP1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DAZAP1 siRNA (h): sc-62194, DAZAP1 siRNA (m): sc-62195, DAZAP1 shRNA Plasmid (h): sc-62194-SH, DAZAP1 shRNA Plasmid (m): sc-62195-SH, DAZAP1 shRNA (h) Lentiviral Particles: sc-62194-V and DAZAP1 shRNA (m) Lentiviral Particles: sc-62195-V.

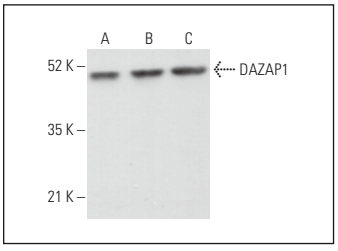
Molecular Weight of DAZAP1: 45 kDa.

Positive Controls: mouse testis extract: sc-2405, NIH/3T3 whole cell lysate: sc-2210 or F9 cell lysate: sc-2245.

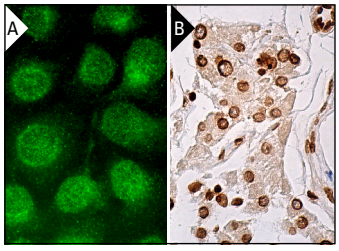
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



DAZAP1 (F-5): sc-376208. Western blot analysis of DAZAP1 expression in NIH/3T3 (**A**) and F9 (**B**) whole cell lysates and mouse testis tissue extract (**C**).



DAZAP1 (F-5): sc-376208. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear staining of cells in seminiferous ducts and Leydig cells (**B**).

RESEARCH USE

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