

DAZ (Z6Q): sc-100705

BACKGROUND

Spermatogenesis is the process by which male spermatogonia develop into mature spermatozoa. DAZ (deleted in azoospermia) are RNA-binding proteins that play an essential role in spermatogenesis. DAZ proteins influence the first stages of spermatogenesis and the maintenance of germ cell populations. DAZ proteins (DAZ1, DAZ2, DAZ3, DAZ4 and DAZ5) are encoded by separate genes on chromosome Y, each of which contain an AZFc domain in their coding region. DAZ proteins are localized to the nucleus of spermatogonia, but relocate to the cytoplasm during meiosis. DAZ proteins contain an RRM (RNA recognition motif) domain that may regulate mRNA translation by binding to the 3' UTR. Deletions in the genes encoding DAZ proteins may cause azoospermia or oligospermia which can lead to male infertility.

REFERENCES

1. Reijo, R., et al. 1995. Diverse spermatogenic defects in humans caused by Y chromosome deletions encompassing a novel RNA-binding protein gene. *Nat. Genet.* 10: 383-393.
2. 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.
3. Saxena, R., et al. 2000. Four DAZ genes in two clusters found in the AZFc region of the human Y chromosome. *Genomics* 67: 256-267.
4. Foresta, C., et al. 2002. Inhibin B plasma concentrations in infertile patients with DAZ gene deletions treated with FSH. *Eur. J. Endocrinol.* 6: 801-806.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 400003. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Skaletsky, H., et al. 2003. The male-specific region of the human Y chromosome is a mosaic of discrete sequence classes. *Nature* 423: 825-837.

SOURCE

DAZ (Z6Q) is a mouse monoclonal antibody raised against recombinant DAZ1 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

DAZ (Z6Q) is recommended for detection of DAZ1, DAZ2, DAZ3 and DAZ4 of 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), 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).

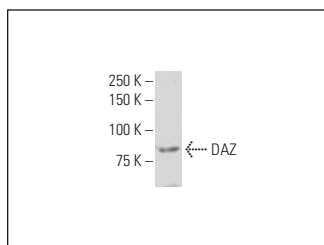
Molecular Weight of DAZ: 66 kDa.

Positive Controls: Daoy whole cell lysate: sc-364381

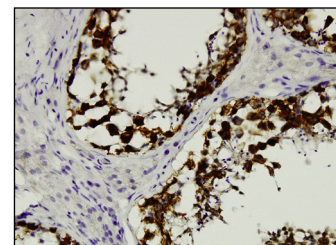
RECOMMENDED SUPPORT REAGENTS

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



DAZ (Z6Q): sc-100705. Western blot analysis of DAZ expression in Daoy whole cell lysate.



DAZ (Z6Q): sc-100705. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human testis tissue showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Bush, J.M., et al. 2011. Testicular germ cell tumours in dogs are predominantly of spermatocytic seminoma type and are frequently associated with somatic cell tumours. *Int. J. Androl.* 34: e288-e295.

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 for detailed protocols and support products.