

DAZ2 (J-22): sc-133497

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 localize 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. DAZ2 (deleted in azoospermia 2), also known as pDP1678, is a 558 amino acid testis specific protein containing fifteen DAZ-like domains and an RNA recognition motif (RRM). DAZ2 exists as three alternatively spliced isoforms.

REFERENCES

1. Reijo, R., et al. 1995. Diverse spermatogenic defects in humans caused by Y chromosome deletions encompassing a novel RNA-binding protein gene. *Nature Genet.* 10: 383-393.
4. 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. 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.
3. Ruggiu, M., et al. 2000. *In vivo* and *in vitro* analysis of homodimerisation activity of the mouse Dazl1 protein. *Gene* 252: 119-126.
5. Moro, E., et al. 2000. Male infertility caused by a *de novo* partial deletion of the DAZ cluster on the Y chromosome. *J. Clin. Endocrinol. Metab.* 85: 4069-4073.
6. 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.
7. 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.

CHROMOSOMAL LOCATION

Genetic locus: DAZ2 (human) mapping to Yq11.223.

SOURCE

DAZ2 (J-22) is an affinity purified rabbit polyclonal antibody raised against a synthetic DAZ2 peptide of human origin.

PRODUCT

Each vial contains 50 µg IgG in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

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

APPLICATIONS

DAZ2 (J-22) is recommended for detection of DAZ2 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).

Suitable for use as control antibody for DAZ2 siRNA (h): sc-105270, DAZ2 shRNA Plasmid (h): sc-105270-SH and DAZ2 shRNA (h) Lentiviral Particles: sc-105270-V.

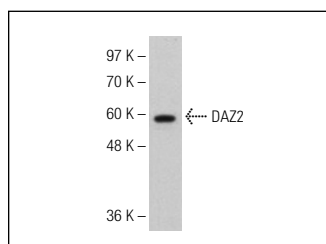
Molecular Weight of DAZ2: 63 kDa.

Positive Controls: Daudi cell lysate: sc-2415.

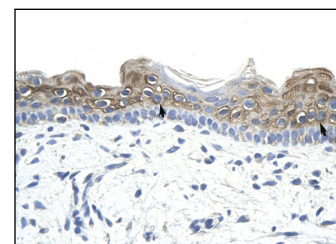
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



DAZ2 (J-22): sc-133497. Western blot analysis of DAZ2 expression in Daudi whole cell lysate.



DAZ2 (J-22): sc-133497. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human skin tissue showing cytoplasmic localization.

RESEARCH USE

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

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Try **DAZ (Z6Q): sc-100705**, our highly recommended monoclonal alternative to DAZ2 (J-22).