SANTA CRUZ BIOTECHNOLOGY, INC.

LOC729661 (A-20): sc-84488



The Power to Question

BACKGROUND

Human gender is determined by the sex chromosomes X and Y. Pairing two X chromosomes during fertilization leads to female development, and the pairing of an X with a Y chromosome leads to male development. The Y chromosome is the human sex determining chromosome, necessary for male development. Deletion or defect of any gene residing on the Y chromosome is not lethal, however it would impair masculine development and function. Carrying an additional copy of the Y chromosome, as in males with XYY Syndrome, does not lead to an obvious phenotype and most XYY males are unaware of their additional Y chromosome. The Y chromosome contains about 86 genes encoded within approximately 58 million base pairs. The LOC729661 gene product has been provisionally designated LOC729661 pending further characterization.

REFERENCES

- Vilain, E. and McCabe, E.R. 1998. Mammalian sex determination: from gonads to brain. Mol. Genet. Metab. 65: 74-84.
- Delbridge, M.L. and Graves J.A. 1999. Mammalian Y chromosome evolution and the male-specific functions of Y chromosome-borne genes. Rev. Reprod. 4: 101-109.
- Koopman, P. 1999. Sry and Sox9: mammalian testis-determining genes. Cell. Mol. Life Sci. 55: 839-856.
- Graves, J.A. 2001. From brain determination to testis determination: evolution of the mammalian sex-determining gene. Reprod. Fertil. Dev. 13: 665-672.
- 5. Graves, J.A. 2006. Sex chromosome specialization and degeneration in mammals. Cell 124: 901-914.
- Krausz, C. and Giachini, C. 2007. Genetic risk factors in male infertility. Arch. Androl. 53: 125-133.
- Lefebvre, V., Dumitriu, B., Penzo-Mendez, A., Han, Y. and Pallavi, B. 2007. Control of cell fate and differentiation by Sry-related high-mobility-group box (Sox) transcription factors. Int. J. Biochem. Cell Biol. 39: 2195-2214.
- Waters, P.D., Wallis, M.C. and Marshall Graves, J.A. 2007. Mammalian sex—Origin and evolution of the Y chromosome and SRY. Semin. Cell Dev. Biol. 18: 389-400.
- 9. Wilhelm, D., Palmer, S. and Koopman, P. 2007. Sex determination and gonadal development in mammals. Physiol. Rev. 87: 1-28.

CHROMOSOMAL LOCATION

Genetic locus: (human) mapping to Yp11.31.

SOURCE

L0C729661 (A-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of L0C729661 of human origin.

STORAGE

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

PRODUCT

Each vial contains 100 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84488 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LOC729661 (A-20) is recommended for detection of LOC729661 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of LOC729661: 15 kDa.

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.

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.