



LOC729573 (G-16): sc-83921

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 LOC729573 gene product has been provisionally designated LOC729573 pending further characterization.

REFERENCES

1. Vilain, E. and McCabe, E.R. 1998. Mammalian sex determination: from gonads to brain. *Mol. Genet. Metab.* 65: 74-84.
2. 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.
3. Koopman, P. 1999. Sry and Sox9: mammalian testis-determining genes. *Cell. Mol. Life Sci.* 55: 839-856.
4. Graves, J.A. 2001. From brain determination to testis determination: evolution of the mammalian sex-determining gene. *Reprod. Fert. Dev.* 13: 665-672.
5. Graves, J.A. 2006. Sex chromosome specialization and degeneration in mammals. *Cell* 124: 901-914.
6. Krausz, C. and Giachini, C. 2007. Genetic risk factors in male infertility. *Arch. Androl.* 53: 125-133.
7. Lefebvre, V., Dumitriu, B., Penzo-Méndez, 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.
8. 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.

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.

SOURCE

LOC729573 (G-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of LOC729573 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-83921 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LOC729573 (G-16) is recommended for detection of LOC729573 of 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).

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) 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.