SANTA CRUZ BIOTECHNOLOGY, INC.

LOC728169 (N-14): sc-83906

BACKGROUND

LOC728169 is a 210 amino acid protein that is encoded by a gene which maps to human chromosome Y. Chromosome Y contains approximately 58 million base pairs and houses over 80 genes, many of which are essential for proper sexual development. The Y chromosome is the human sex determining chromosome which is necessary for male development and, while deletions or defects in chromosome Y-encoded genes are not lethal, they may greatly impair masculine development and function. Carrying an additional copy of the Y chromosome, as seen in males with XYY Syndrome, does not lead to an obvious phenotype and most XYY males are unaware of their additional Y chromosome. The LOC728169 gene product has been provisionally designated LOC728169 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. Graves, J.A. 2001. From brain determination to testis determination: evolution of the mammalian sex-determining gene. Reprod. Fertil. Dev. 13: 665-672.
4. Skaletsky, H., Kuroda-Kawaguchi, T., Minx, P.J., Cordum, H.S., Hillier, L., Brown, L.G., Repping, S., Pyntikova, T., Ali, J., Bieri, T., Chinwalla, A., Delehaunty, A., Delehaunty, K., Du, H., Fewell, G., Fulton, L., Fulton, R., Graves, T., Hou, S.F., Latrielle, P., Leonard, S., Mardis, E., et al. 2003. The male-specific region of the human Y chromosome is a mosaic of discrete sequence classes. Nature. 423: 825-837.
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. 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.
8. Wilhelm, D., Palmer, S. and Koopman, P. 2007. Sex determination and gonadal development in mammals. Physiol. Rev. 87: 1-28.

CHROMOSOMAL LOCATION

Genetic locus: LOC728169 (human) mapping to Yq11.1.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

SOURCE

LOC728169 (N-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of LOC728169 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-83906 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LOC728169 (N-14) is recommended for detection of LOC728169 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).

Suitable for use as control antibody for LOC728169 siRNA (h): sc-91543, LOC728169 shRNA Plasmid (h): sc-91543-SH and LOC728169 shRNA (h) Lentiviral Particles: sc-91543-V.

Molecular Weight of LOC728169: 26 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) 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.