

# LOC729632 (G-4): sc-514731

## 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 LOC729632 gene product has been provisionally designated LOC729632 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.

## SOURCE

LOC729632 (G-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-19 at the N-terminus of LOC729632 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LOC729632 (G-4) is available conjugated to agarose (sc-514731 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514731 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514731 PE), fluorescein (sc-514731 FITC), Alexa Fluor® 488 (sc-514731 AF488), Alexa Fluor® 546 (sc-514731 AF546), Alexa Fluor® 594 (sc-514731 AF594) or Alexa Fluor® 647 (sc-514731 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514731 AF680) or Alexa Fluor® 790 (sc-514731 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514731 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

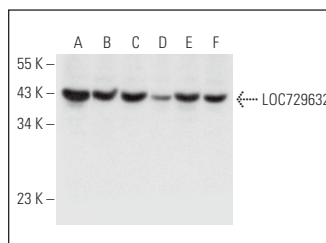
LOC729632 (G-4) is recommended for detection of LOC729632 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Positive Controls: MCF7 whole cell lysate: sc-2206, IMR-32 cell lysate: sc-2409 or HeLa whole cell lysate: sc-2200.

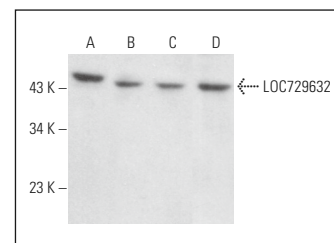
## RECOMMENDED SUPPORT REAGENTS

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.

## DATA



LOC729632 (G-4): sc-514731. Western blot analysis of LOC729632 expression in MCF7 (A), IMR-32 (B), HeLa (C), Hep G2 (D), SW480 (E) and K-562 (F) whole cell lysates.



LOC729632 (G-4): sc-514731. Western blot analysis of LOC729632 expression in MCF7 (A), 3T3-L1 (B), RAW 264.7 (C) and PC-12 (D) whole cell lysates.

## 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](http://www.scbt.com) for detailed protocols and support products.