

STELLA (N-20): sc-51435

BACKGROUND

STELLA, also known as Dppa3 and Pgc7, is a member of the developmental pluripotency-associated protein family thought to play a key role in embryonic germ cell development. Expressed highly in fetal ovary with lower expression found in the testis and thymus, STELLA contributes to germ cell differentiation and acts as a maternal factor regulating early embryogenesis. In addition to contributing to normal embryonic development, STELLA is overexpressed in testicular germ cell tumors, indicating a possible role in tumor formation. The elevated levels of STELLA observed in carcinoma cells suggest that it may be a novel candidate for early cancer detection.

REFERENCES

1. Saitou, M., et al. 2002. A molecular programme for the specification of germ cell fate in mice. *Nature* 418: 293-300.
2. Bowles, J., et al. 2003. Dppa3 is a marker of pluripotency and has a human homologue that is expressed in germ cell tumours. *Cytogenet. Genome Res.* 101: 261-265.
3. Payer, B., et al. 2003. STELLA is a maternal effect gene required for normal early development in mice. *Curr. Biol.* 13: 2110-2117.
4. Bortvin, A., et al. 2004. Dppa3/Pgc7/STELLA is a maternal factor and is not required for germ cell specification in mice. *BMC Dev. Biol.* 4: 2.
5. Elliman, S.J., et al. 2005. Adult tissue-specific expression of a dppa3-derived retrogene represents a postnatal transcript of pluripotent cell origin. *J. Biol. Chem.* 281: 16-19.
6. Lin, Y., et al. 2005. Dazl deficiency leads to embryonic arrest of germ cell development in XY C57BL/6 mice. *Dev. Biol.* 288: 309-316.
7. Tanaka, S.S., et al. 2005. IFITM/Mil/Fragilis family proteins IFITM1 and IFITM3 play distinct roles in mouse primordial germ cell homing and repulsion. *Dev. Cell* 9: 745-756.
8. Lagarkova, M.A., et al. 2006. Diverse epigenetic profile of novel human embryonic stem cell lines. *Cell Cycle* 5: 416-420.
9. Yabuta, Y., et al. 2006. Gene expression dynamics during germline specification in mice identified by quantitative single-cell gene expression profiling. *Biol. Reprod.* 75: 705-716.

CHROMOSOMAL LOCATION

Genetic locus: DPPA3 (human) mapping to 12p13.31.

SOURCE

STELLA (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of STELLA of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-51435 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-51435 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

STELLA (N-20) is recommended for detection of STELLA 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 STELLA siRNA (h): sc-72248, STELLA shRNA Plasmid (h): sc-72248-SH and STELLA shRNA (h) Lentiviral Particles: sc-72248-V.

STELLA (N-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of STELLA: 20 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.



MONOS
Satisfaction
Guaranteed

Try **STELLA (D-5): sc-376862**, our highly recommended monoclonal alternative to STELLA (N-20).