SANTA CRUZ BIOTECHNOLOGY, INC.

STELLA (D-5): sc-376862

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

STELLA, also known as Dppa3 and Pcg7, 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 embryogensis. 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.

CHROMOSOMAL LOCATION

Genetic locus: DPPA3 (human) mapping to 12p13.31; Dppa3 (mouse) mapping to 6 F1.

SOURCE

STELLA (D-5) is a mouse monoclonal antibody raised against amino acids 1-159 representing full length STELLA of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STELLA (D-5) is available conjugated to agarose (sc-376862 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376862 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376862 PE), fluorescein (sc-376862 FITC), Alexa Fluor® 488 (sc-376862 AF488), Alexa Fluor® 546 (sc-376862 AF546), Alexa Fluor® 594 (sc-376862 AF594) or Alexa Fluor® 647 (sc-376862 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376862 AF680) or Alexa Fluor® 790 (sc-376862 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

STELLA (D-5) is recommended for detection of STELLA 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), immunohistochemistry (including paraffin-embedded sections) (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 siRNA (m): sc-153891, STELLA shRNA Plasmid (h): sc-72248-SH, STELLA shRNA Plasmid (m): sc-153891-SH, STELLA shRNA (h) Lentiviral Particles: sc-72248-V and STELLA shRNA (m) Lentiviral Particles: sc-153891-V.

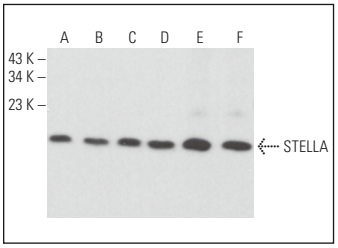
Molecular Weight of STELLA: 20 kDa.

Positive Controls: F9 cell lysate: sc-2245, NIH/3T3 whole cell lysate: sc-2210 or EOC 20 whole cell lysate: sc-364187.

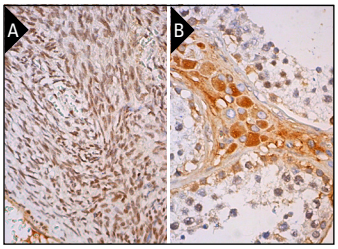
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



STELLA (D-5): sc-376862. Western blot analysis of STELLA expression in F9 (**A**), NIH/3T3 (**B**), 3T3-L1 (**C**) and EOC 20 (**D**) whole cell lysates and mouse testis (**E**) and rat testis (**F**) tissue extracts.



STELLA (D-5): sc-376862. Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing nuclear staining of ovarian stroma cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing weak nuclear staining of cells in seminiferous ducts and cytoplasmic staining of Leydig cells (**B**).

SELECT PRODUCT CITATIONS

1. Bayerl, J., et al. 2021. Principles of signaling pathway modulation for enhancing human naive pluripotency induction. Cell Stem Cell 28: 1549-1565.e12.
2. Cuesta-Borràs, E., et al. 2023. DPPA3-HIF1α axis controls colorectal cancer chemoresistance by imposing a slow cell-cycle phenotype. Cell Rep. 42: 112927.
3. Oldak, B., et al. 2023. Complete human day 14 post-implantation embryo models from naive ES cells. Nature 622: 562-573.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

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