

STELLA (D-5): sc-376862

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 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.

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 IgG₁ 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.

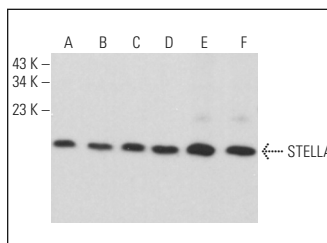
Molecular Weight of STELLA: 20 kDa.

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

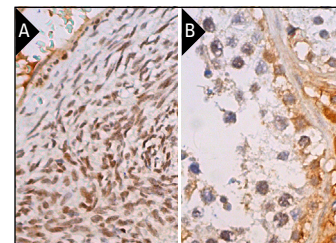
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (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 BPFITC: sc-516140 or m-IgGκ BPE: 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 BPHRP: 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.

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.

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA