SANTA CRUZ BIOTECHNOLOGY, INC.

SF-1 (G-12): sc-398202



BACKGROUND

Steroidogenic factor-1 (SF-1), also known as NR5A1, regulates multiple genes involved in the adrenal and gonadal development and in the biosynthesis of a variety of hormones, including adrenal and gonadal steroids, anti-Mullerian hormone (AMH), and gonadotropins. SF-1 belongs to the fushi tarazu factor-1 (FTZ-F1) subfamily of orphan nuclear receptors. In the adult ovary, SF-1 localizes to theca/interstitial cells.

REFERENCES

- 1. Li, M., et al. 1998. Cloning and characterization of a novel human hepatocyte transcription factor, hB1F, which binds and activates enhancer II of hepatitis B virus. J. Biol. Chem. 273: 29022-29031.
- 2. Falender, A.E., et al. 2003. Differential expression of steroidogenic factor-1 and FTF/LRH-1 in the rodent ovary. Endocrinology 144: 3598-3610.
- 3. Parker, K.L. 2004. Tissue-specific knockouts of steroidogenic factor 1. Endocr. Res. 30: 855.
- 4. Jameson, J.L. 2004. Of mice and men: the tale of steroidogenic factor-1. J. Clin. Endocrinol. Metab. 89: 5927-5929.
- 5. Hasegawa, T., et al. 2004. Testicular dysgenesis without adrenal insufficiency in a 46,XY patient with a heterozygous inactive mutation of steroidogenic factor-1. J. Clin. Endocrinol. Metab. 89: 5930-5935.
- 6. Chen, W.Y., et al. 2004. SUMO modification of repression domains modulates function of nuclear receptor 5A1 (steroidogenic factor-1). J. Biol. Chem. 279: 38730-38735.
- 7. Li, Y., et al. 2005. Crystallographic identification and functional characterization of phospholipids as ligands for the orphan nuclear receptor steroidogenic factor-1. Mol. Cell 17: 491-502.
- 8. Wilson, M.J., et al. 2005. The transcription factors steroidogenic factor-1 and Sox9 regulate expression of vanin-1 during mouse testis development. J. Biol. Chem. 280: 5917-5923.

CHROMOSOMAL LOCATION

Genetic locus: NR5A1 (human) mapping to 9q33.3.

SOURCE

SF-1 (G-12) is a mouse monoclonal antibody raised against amino acids 201-260 mapping within an internal region of SF-1 of human origin.

PRODUCT

Each vial contains 200 μ g lgG₁ kappa light chain 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-398202 X, 200 µg/0.1 ml.

STORAGE

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

APPLICATIONS

SF-1 (G-12) is recommended for detection of SF-1 of 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).

Suitable for use as control antibody for SF-1 siRNA (h): sc-37901, SF-1 shRNA Plasmid (h): sc-37901-SH and SF-1 shRNA (h) Lentiviral Particles: sc-37901-V.

SF-1 (G-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of SF-1: 53 kDa.

Positive Controls: SF-1 (h): 293T Lysate: sc-158953 or Hep G2 cell lysate: sc-2227.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGK BP-HRP: sc-516102 or m-IgGK 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-IgGk BP-FITC: sc-516140 or m-IgGk 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



SF-1 (G-12): sc-398202. Western blot analysis of SF-1 expression in non-transfected 293T: sc-117752 (A), human SF-1 transfected 293T: sc-158953 (B) and Hep G2 (C) whole cell lysates

SELECT PRODUCT CITATIONS

1. Eisalou, M.Y. and Farahpour, M.R. 2022. Effectiveness of y Oryzanol on prevention of surgical induced endometriosis development in rat model. Sci. Rep. 12: 2816.

RESEARCH USE

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