SANTA CRUZ BIOTECHNOLOGY, INC.

SRY (D-11): sc-398567

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

SRY (sex-determining region Y protein) is a transcriptional activator required for male sex determination in mammals. This protein, also referred to as testis-determining factor (TDF), is an HMG box protein that initiates the formation of testis from undifferentiated gonad. The DNA-binding activity of SRY is required for normal testis formation. This DNA-binding activity is thought to be regulated by PKA, which phosphorylates SRY *in vivo*. Mutations in SRY have been associated with 46,XY gonadal dysgenesis, in which the gonads fail to develop in XY phenotypic females.

REFERENCES

1. Clepet, C., et al. 1993. The human SRY transcript. Hum. Mol. Genet. 2: 2007-2012.
2. Harley, V.R., et al. 1994. The biochemical role of SRY in sex determination. Mol. Reprod. Dev. 39: 184-193.
3. Fechner, P.Y. 1996. The role of SRY in mammalian sex determination. Acta Paediatr. Jpn. 38: 380-389.
4. Tsutsumi, O., et al. 1996. Analysis of the testis-determining gene SRY in patients with gonadal dysgenesis. Horm. Res. 46: 6-10.
5. Graves, J.A. 1998. Evolution of the mammalian Y chromosome and sex-determining genes. J. Exp. Zool. 281: 472-481.
6. Desclozeaux, M., et al. 1998. Phosphorylation of an N-terminal motif enhances DNA-binding activity of the human SRY protein. J. Biol. Chem. 273: 7988-7995.
7. Forwood, J.K., et al. 2001. The C-terminal nuclear localization signal of the sex-determining region Y (SRY) high mobility group domain mediates nuclear import through importin β1. J. Biol. Chem. 276: 46575-46582.
8. Baud, S., et al. 2002. Equilibrium binding assays reveal the elevated stoichiometry and salt dependence of the interaction between full-length human sex-determining region on the Y chromosome (SRY) and DNA. J. Biol. Chem. 277: 18404-18410.

CHROMOSOMAL LOCATION

Genetic locus: Sry (mouse) mapping to Y A1.

SOURCE

SRY (D-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-31 at the N-terminus of SRY of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_3 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-398567 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-398567 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

SRY (D-11) is recommended for detection of SRY and SOX family proteins of mouse and rat 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).

SRY (D-11) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

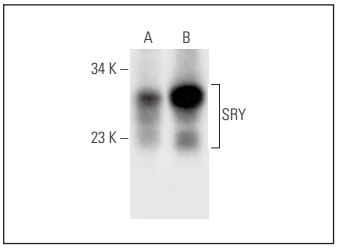
Molecular Weight of SRY: 27 kDa.

Positive Controls: mouse testis extract: sc-2405 or rat testis extract: sc-2400.

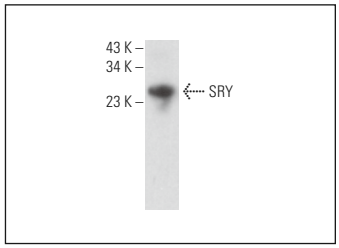
RECOMMENDED SUPPORT REAGENTS

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



SRY (D-11): sc-398567. Western blot analysis of SRY expression in mouse testis (**A**) and rat testis (**B**) tissue extracts.



SRY (D-11): sc-398567. Western blot analysis of SRY expression in human testis tissue extract.

SELECT PRODUCT CITATIONS

1. Engineer, A., et al. 2019. Sapropterin reduces coronary artery malformation in offspring of pregestational diabetes mice. Nitric Oxide 94: 9-18.

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.