

SRY (H-1): sc-374224

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 β 1. *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.
9. Morrison, L.S., et al. 2003. Thimet oligopeptidase expression is differentially regulated in neuroendocrine and spermatid cell lines by transcription factor binding to SRY (sex-determining region Y), CAAT and CREB (cAMP-response-element-binding protein) promoter consensus sequences. *Biochem. J.* 376: 189-197.

CHROMOSOMAL LOCATION

Genetic locus: SRY (human) mapping to Yp11.31.

SOURCE

SRY (H-1) is a mouse monoclonal antibody raised against amino acids 1-60 mapping at the N-terminus of SRY of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} 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-374224 X, 200 μ g/0.1 ml.

APPLICATIONS

SRY (H-1) is recommended for detection of SRY of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 SRY siRNA (h): sc-38443, SRY shRNA Plasmid (h): sc-38443-SH and SRY shRNA (h) Lentiviral Particles: sc-38443-V.

SRY (H-1) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

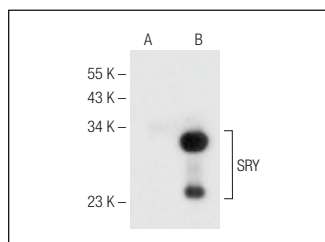
Molecular Weight of SRY: 27 kDa.

Positive Controls: human testis extract: sc-363781, NTERA-2 cl.D1 whole cell lysate: sc-364181 or human SRY transfected HEK293T whole cell lysate.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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 (H-1): sc-374224. Western blot analysis of SRY expression in non-transfected (A) and human SRY transfected (B) HEK293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Olivares, A., et al. 2018. Regulation of CATSPER1 expression by the testis-determining gene SRY. *PLoS ONE* 13: e0205744.

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.