SANTA CRUZ BIOTECHNOLOGY, INC.

# CRISP-2 (E-12): sc-377391

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Cysteine-rich secretory proteins (CRISPs) represent a family of evolutionarily conserved proteins which may play a role in the innate immune system and are transcriptionally regulated by androgens in several tissues. CRISP-1 coats the postacrosomal region of sperm heads as they pass through the epididymis. CRISP-1 is found in all regions of the epididymis, ductus deferens, seminal plasma and sperm. CRISP-2, also known as testis-specific protein TPX1 or cancer/testis antigen 36 (CT36), is a 243 amino acid secreted protein. Expressed in the testis and epididymis, CRISP-2 is thought to be involved in calcium fluxes during sperm capacitation by regulating the activity of certain ion channels. CRISP-3 is expressed in pancreas and prostate tissues and, along with CRISP-1, is expressed in saliva. The gene that encodes CRISP-3 is an early response gene that may participate in the pathophysiology of the autoimmune lesions of Sjogren's syndrome.

## REFERENCES


1. Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 187430. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
2. Busso, D., et al. 2005. Human testicular protein TPX1/CRISP-2: localization in spermatozoa, fate after capacitation and relevance for gamete interaction. Mol. Hum. Reprod. 11: 299-305.
3. Du, Y., et al. 2006. Human testis specific protein 1 expression in human spermatogenesis and involvement in the pathogenesis of male infertility. Fertil. Steril. 85: 1852-1854.
4. Gibbs, G.M., et al. 2006. The cysteine-rich secretory protein domain of Tpx-1 is related to ion channel toxins and regulates ryanodine receptor $Ca^{2+}$ signaling. J. Biol. Chem. 281 4156-4163.
5. Hamann, H., et al. 2007. A polymorphism within the equine CRISP-3 gene is associated with stallion fertility in Hanoverian warmblood horses. Anim. Genet. 38: 259-264.
6. Busso, D., et al. 2007. Evidence for the involvement of testicular protein CRISP-2 in mouse sperm-egg fusion. Biol. Reprod. 76: 701-708.
7. Gibbs, G.M., et al. 2007. Cysteine-rich secretory protein 2 binds to mitogen-activated protein kinase kinase kinase 11 in mouse sperm. Biol. Reprod. 77: 108-114.


## CHROMOSOMAL LOCATION

Genetic locus: Crisp2 (mouse) mapping to 17 B2.

## SOURCE

CRISP-2 (E-12) is a mouse monoclonal antibody raised against amino acids 24-98 mapping near the N-terminus of CRISP-2 of mouse 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.

## APPLICATIONS

CRISP-2 (E-12) is recommended for detection of CRISP-2 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).

Suitable for use as control antibody for CRISP-2 siRNA (m): sc-77025, CRISP-2 shRNA Plasmid (m): sc-77025-SH and CRISP-2 shRNA (m) Lentiviral Particles: sc-77025-V.

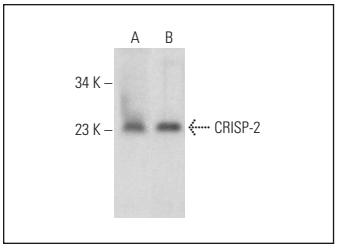
Molecular Weight of CRISP-2: 27 kDa.

Positive Controls: mouse epididymis extract: sc-364240, mouse testis extract: sc-2405 or rat testis extract: sc-2400.

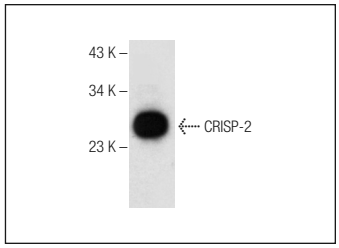
## RECOMMENDED SUPPORT REAGENTS

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




CRISP-2 (E-12): sc-377391. Western blot analysis of CRISP-2 expression in mouse testis (**A**) and rat testis (**B**) tissue extracts.




CRISP-2 (E-12): sc-377391. Western blot analysis of CRISP-2 expression in mouse epididymis tissue extract.

## 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.

## PROTOCOLS

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