

CRISP-2 (G-19): sc-70038

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 certain ion channels' activity. 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. 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.
2. 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.
3. Gibbs, G.M., et al. 2006. The cysteine-rich secretory protein domain of TPX1 is related to ion channel toxins and regulates ryanodine receptor Ca²⁺ signaling. *J. Biol. Chem.* 281: 4156-4163.
4. 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.
5. Busso, D., et al. 2007. Evidence for the involvement of testicular protein CRISP-2 in mouse sperm-egg fusion. *Biol. Reprod.* 76: 701-708.
6. 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.
7. Online Mendelian Inheritance in Man, OMIM[™]. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 187430. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

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

SOURCE

CRISP-2 (G-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CRISP-2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-70038 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CRISP-2 (G-19) is recommended for detection of CRISP-2 of mouse and rat origin by Western Blotting (starting dilution 1:200, 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.

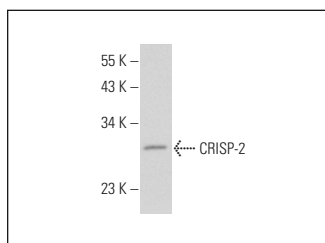
Molecular Weight of CRISP-2: 27 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



CRISP-2 (G-19): sc-70038. Western blot analysis of CRISP-2 expression in NIH/3T3 whole cell lysate.

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.



Try **CRISP-2 (D-10): sc-390914** or **CRISP-2 (E-12): sc-377391**, our highly recommended monoclonal alternatives to CRISP-2 (G-19).