

CRP1 (H-89): sc-366056

BACKGROUND

Cysteine-rich proteins (CRPs) participate in the organization of multiprotein complexes, both in the cytoplasm, where they participate in cytoskeletal remodeling, and in the nucleus, where they facilitate smooth muscle differentiation. CRP1 (cysteine and glycine-rich protein 1), also known as CRP, CSR1 or CYRP, is abundant in the prostate and smooth muscle lineages. It contains two LIM zinc-binding domains and is localized in the nucleus. The LIM domains of CRP1 are critical for binding to the adhesion-plaque protein zyxin. CRP1 also interacts with α -actinin to mediate muscle differentiation. These associations indicate that the main function of CRP1 may be structural.

REFERENCES

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- Pomies, P., et al. 1997. CRP1, a LIM domain protein implicated in muscle differentiation, interacts with α -actinin. *J. Cell Biol.* 139: 157-168.
- Dube, J.Y., et al. 1998. Abundant cysteine-rich protein-1 is localized in the stromal compartment of the human prostate. *Arch. Androl.* 40: 109-115.
- Schmeichel, K.L., et al. 1998. LIM domains of cysteine-rich protein 1 (CRP1) are essential for its zyxin-binding function. *Biochem. J.* 331: 885-892.
- Erdel, M., et al. 1998. Assignment1 of CSR1 encoding the LIM domain protein CRP1, to human chromosome 1q32 by fluorescence *in situ* hybridization. *Cytogenet. Cell Genet.* 83: 10-11.
- Henderson, J.R., et al. 1999. The LIM protein, CRP1, is a smooth muscle marker. *Dev. Dyn.* 214: 229-238.
- Chang, D.F., et al. 2003. Cysteine-rich LIM-only proteins CRP1 and CRP2 are potent smooth muscle differentiation cofactors. *Dev. Cell* 4: 107-118.
- SWISS-PROT/TrEMBL (P21291). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: CSR1 (human) mapping to 1q32.1; Csrp1 (mouse) mapping to 1 E4.

SOURCE

CRP1 (H-89) is a rabbit polyclonal antibody raised against amino acids 8-96 mapping near the N-terminus of CRP1 of human origin.

PRODUCT

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

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.

APPLICATIONS

CRP1 (H-89) is recommended for detection of CRP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

CRP1 (H-89) is also recommended for detection of CRP1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CRP1 siRNA (h): sc-45367, CRP1 siRNA (m): sc-45368, CRP1 shRNA Plasmid (h): sc-45367-SH, CRP1 shRNA Plasmid (m): sc-45368-SH, CRP1 shRNA (h) Lentiviral Particles: sc-45367-V and CRP1 shRNA (m) Lentiviral Particles: sc-45368-V.

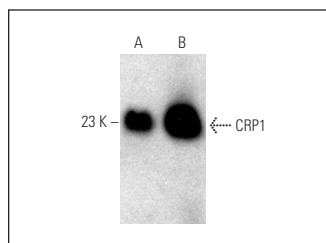
Molecular Weight of CRP1: 23 kDa.

Positive Controls: CRP1 (h): 293T Lysate: sc-114922, HeLa nuclear extract: sc-2120 or PC-3 nuclear extract: sc-2152.

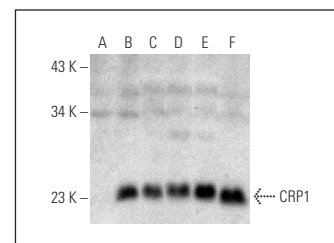
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CRP1 (H-89): sc-366056. Western blot analysis of CRP1 expression in A549 nuclear extract (A) and mouse bladder tissue extract (B).



CRP1 (H-89): sc-366056. Western blot analysis of CRP1 expression in non-transfected: sc-117752 (A) and human CRP1 transfected: sc-114922 (B) 293T whole cell lysates and HeLa (C), PC-3 (D), DU 145 (E) and A10 (F) nuclear extracts.

PROTOCOLS

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