

CRP1 (41): sc-136322



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, CSRP1 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

1. Weiskirchen, R., et al. 1995. The cysteine-rich protein family of highly related LIM domain proteins. *J. Biol. Chem.* 270: 28946-28954.
2. Pomies, P., et al. 1997. CRP1, a LIM domain protein implicated in muscle differentiation, interacts with α -actinin. *J. Cell Biol.* 139: 157-168.
3. 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.
4. 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.
5. Erdel, M., et al. 1998. Assignment1 of CSRP1 encoding the LIM domain protein CRP1, to human chromosome 1q32 by fluorescence *in situ* hybridization. *Cytogenet. Cell Genet.* 83: 10-11.
6. Henderson, J.R., et al. 1999. The LIM protein, CRP1, is a smooth muscle marker. *Dev. Dyn.* 214: 229-238.
7. 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.
8. SWISS-PROT/TrEMBL (P21291). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: CSRP1 (human) mapping to 1q32.1; *Csrp1* (mouse) mapping to 1 E4.

SOURCE

CRP1 (41) is a mouse monoclonal antibody raised against amino acids 79-193 of CRP1 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG₁ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-136322 X, 200 μ g/0.1 ml.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

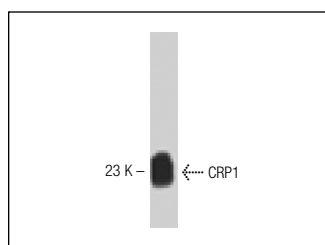
CRP1 (41) is recommended for detection of CRP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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: mouse lung extract: sc-2390, HeLa nuclear extract: sc-2120 or PC-3 nuclear extract: sc-2152.

DATA



CRP1 (41): sc-136322. Western blot analysis of CRP1 expression in mouse lung tissue extract.

RESEARCH USE

For research use only, not for use in diagnostic procedures. Not for resale.

PROTOCOLS

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