

# CRIP2 (M-54): sc-99212

## BACKGROUND

Cysteine-rich protein 2 (CRIP2) is a 208 amino acid protein that contains two LIM zinc-binding domains that link to short glycine-rich repeats, and a potential nuclear localization signal. CRIP proteins participate in the organization of multi-protein complexes both in the cytoplasm, where they participate in cytoskeletal remodeling, and in the nucleus, where they facilitate smooth muscle differentiation. CRIP2 tissue expression is widespread, with highest levels in the heart. The human CRIP2 gene maps to chromosome 14q32.33.

## REFERENCES

- Okano, I., et al. 1993. Cloning of CRP2, a novel member of the cysteine-rich protein family with two repeats of an unusual LIM/double zinc-finger motif. *FEBS Lett.* 300: 51-55.
- Karim, M.A., et al. 1996. Human ESP1/CRP2, a member of the LIM domain protein family: characterization of the cDNA and assignment of the gene locus to chromosome 14q32.3. *Genomics* 31:167-176.
- Huber, A., et al. 2000. Cysteine-rich protein 2, a novel substrate for cGMP kinase I in enteric neurons and intestinal smooth muscle. *J. Biol. Chem.* 275: 5504-5511.
- Chang, Y.F., et al. 2003. Identification of a CArG-independent region of the cysteine-rich protein 2 promoter that directs expression in the developing vasculature. *Am. J. Physiol. Heart Circ. Physiol.* 285: H1675-H1683.
- Chang, D.F., et al. 2003. Cysteine-rich LIM-only proteins CRP1 and CRP2 are potent smooth muscle differentiation cofactors. *Dev. Cell* 1: 107-118.
- Wei, J., 2005. Increased neointima formation in cysteine-rich protein 2-deficient mice in response to vascular injury. *Circ. Res.* 97: 1323-1331.
- Schmidtko, A., 2008. Cysteine-rich protein 2, a novel downstream effector of cGMP/cGMP-dependent protein kinase I-mediated persistent inflammatory pain. *J. Neurosci.* 28: 1320-1330.
- Lin, D.W., 2008. Transforming growth factor  $\beta$  up-regulates cysteine-rich protein 2 in vascular smooth muscle cells via activating transcription factor 2. *J. Biol. Chem.* 283: 15003-15014.

## CHROMOSOMAL LOCATION

Genetic locus: CRIP2 (human) mapping to 14q32.33; Crip2 (mouse) mapping to 12 F1.

## SOURCE

CRIP2 (M-54) is a rabbit polyclonal antibody raised against amino acids 68-121 mapping within an internal region of CRIP2 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ 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.

## APPLICATIONS

CRIP2 (M-54) is recommended for detection of CRIP2 of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

CRIP2 (M-54) is also recommended for detection of CRIP2 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for CRIP2 siRNA (h): sc-106947, CRIP2 siRNA (m): sc-142572, CRIP2 shRNA Plasmid (h): sc-106947-SH, CRIP2 shRNA Plasmid (m): sc-142572-SH, CRIP2 shRNA (h) Lentiviral Particles: sc-106947-V and CRIP2 shRNA (m) Lentiviral Particles: sc-142572-V.

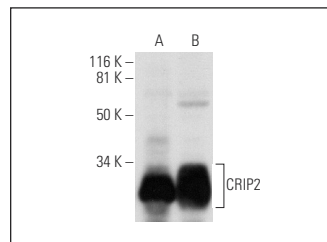
Molecular Weight of CRIP2: 22 kDa.

Positive Controls: mouse heart extract: sc-2254 or human heart extract: sc-363763.

## 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



CRIP2 (M-54): sc-99212. Western blot analysis of CRIP2 expression in mouse heart (A) and human heart (B) tissue extracts.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.