

# CRP3 (G-16): sc-30274

## BACKGROUND

Cysteine and glycine-rich protein 3 (CRP3), also known as cysteine-rich protein 3, CLP (cardiac LIM protein), MLP (muscle LIM protein), LMO4 or CMD1M, is an essential nuclear regulator of myogenic differentiation. CRP3 contains two LIM zinc-binding domains linked to short glycine-rich repeats and a potential nuclear localization signal. CRP3 is present in differentiated heart during early development and in a subset of other striated muscles during later stages. Defects in the gene encoding CRP3 (CSRP3) can cause dilated cardiomyopathy 1M (CMD1M), a disease characterized by reduced systolic function and cardiac dilation. Human CSRP3 maps to the gene locus 11p15.1.

## REFERENCES

- Weiskirchen, R., et al. 1995. The cysteine-rich protein family of highly related LIM domain proteins. *J. Biol. Chem.* 270: 28946-28954.
- Fung, Y., et al. 1995. Mapping of a human LIM protein (CLP) to human chromosome 11p15.1 by fluorescence *in situ* hybridization. *Genomics* 28: 602-603.
- Geier, C., et al. 2003. Mutations in the human muscle LIM protein gene in families with hypertrophic cardiomyopathy. *Circulation* 10: 1390-1395.
- Knöll, R., et al. 2002. The cardiac mechanical stretch sensor machinery involves a Z disc complex that is defective in a subset of human dilated cardiomyopathy. *Cell* 111: 943-955.
- Duan, L., et al. 2003. Expression of muscle LIM protein during early development in *Xenopus laevis*. *Int. J. Dev. Biol.* 4: 299-302.
- Lu, P.Y., et al. 2004. Muscle LIM protein promotes expression of the acetylcholine receptor gamma-subunit gene cooperatively with the myogenin-E12 complex. *Cell. Mol. Life Sci.* 61: 2386-2392.
- Heineke, J., et al. 2005. Attenuation of cardiac remodeling after myocardial infarction by muscle LIM protein-calcineurin signaling at the sarcomeric Z-disc. *Proc. Natl. Acad. Sci. USA* 102: 1655-1660.

## CHROMOSOMAL LOCATION

Genetic locus: CSRP3 (human) mapping to 11p15.1; *Csrp3* (mouse) mapping to 7 B4.

## SOURCE

CRP3 (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CRP3 of human 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-30274 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

CRP3 (G-16) is recommended for detection of CRP3 of mouse, rat and human 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).

CRP3 (G-16) is also recommended for detection of CRP3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CRP3 siRNA (h): sc-106928, CRP3 siRNA (m): sc-45933, CRP3 shRNA Plasmid (h): sc-106928-SH, CRP3 shRNA Plasmid (m): sc-45933-SH, CRP3 shRNA (h) Lentiviral Particles: sc-106928-V and CRP3 shRNA (m) Lentiviral Particles: sc-45933-V.

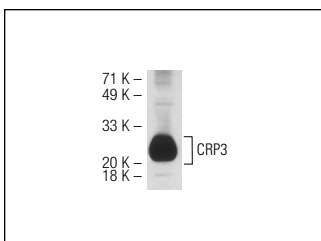
Molecular Weight of CRP3: 24 kDa.

Positive Controls: mouse heart extract: sc-2254 or rat heart extract: sc-2393.

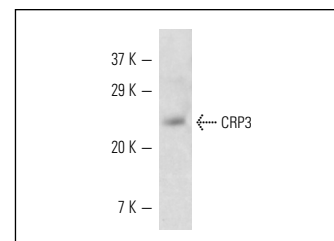
## RECOMMENDED SECONDARY REAGENTS

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



CRP3 (G-16): sc-30274. Western blot analysis of CRP3 expression in rat heart tissue extract.



CRP3 (G-16): sc-30274. Western blot analysis of CRP3 expression in mouse heart tissue extract.

## STORAGE

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

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Satisfaction  
Guaranteed

Try **CRP3 (A-5): sc-166930** or **CRP3 (B-4): sc-393599**, our highly recommended monoclonal alternatives to CRP3 (G-16). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **CRP3 (A-5): sc-166930**.