

CRP3 (S-18): sc-30275

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

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2. 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.
3. Geier, C., et al. 2003. Mutations in the human muscle LIM protein gene in families with hypertrophic cardiomyopathy. *Circulation* 10: 1390-1395.
4. 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.
5. Duan, L., et al. 2003. Expression of muscle LIM protein during early development in *Xenopus laevis*. *Int. J. Dev. Biol.* 4: 299-302.
6. Lu, P.Y., et al. 2004. Muscle LIM protein promotes expression of the acetylcholine receptor γ -subunit gene cooperatively with the myogenin-E12 complex. *Cell. Mol. Life Sci.* 61: 2386-2392.
7. 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.
8. van den Bosch, B.J., et al. 2005. Regional absence of mitochondria causing energy depletion in the myocardium of muscle LIM protein knockout mice. *Cardiovasc. Res.* 65: 411-418.

CHROMOSOMAL LOCATION

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

SOURCE

CRP3 (S-18) 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 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-30275 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CRP3 (S-18) 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), 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 (S-18) is also recommended for detection of CRP3 in additional species, including equine, canine 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: rat heart extract: sc-2393 or mouse heart extract: sc-2254.

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) 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.

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.

PROTOCOLS

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



Try **CRP3 (A-5): sc-166930** or **CRP3 (B-4): sc-393599**, our highly recommended monoclonal alternatives to CRP3 (S-18). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **CRP3 (A-5): sc-166930**.