

CRP3 (B-4): sc-393599

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.

CHROMOSOMAL LOCATION

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

SOURCE

CRP3 (B-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 82-109 within an internal region of CRP3 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393599 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

CRP3 (B-4) is recommended for detection of CRP3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 (B-4) 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.

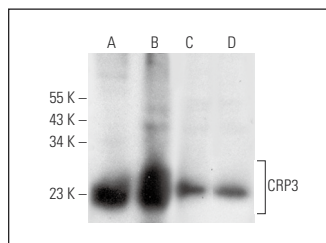
Molecular Weight of CRP3: 24 kDa.

Positive Controls: human heart extract: sc-363763, HeLa whole cell lysate: sc-2200 or rat heart extract: sc-2393.

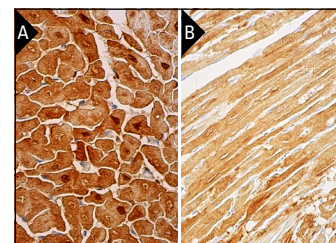
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistochemistry Mount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



CRP3 (B-4): sc-393599. Western blot analysis of CRP3 expression in rat heart (A) and human heart (B) tissue extracts and HeLa (C) and Jurkat (D) whole cell lysates.



CRP3 (B-4): sc-393599. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic and nuclear staining of myocytes (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded rat heart muscle tissue showing cytoplasmic staining of myocytes. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214. Detected with m-IgGκ BP-B: sc-516142 and ImmunoCruz® ABC Kit: sc-516216 (B).

SELECT PRODUCT CITATIONS

- Nagai-Okatani, C. and Minamino, N. 2016. Aberrant glycosylation in the left ventricle and plasma of rats with cardiac hypertrophy and heart failure. PLoS ONE 11: e0150210.

RESEARCH USE

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

PROTOCOLS

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



See **CRP3 (A-5): sc-166930** for CRP3 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.