

# sorcin (C-20): sc-12301

## BACKGROUND

Sorcin is a highly conserved protein, with 95% homology between hamster and human sorcin sequences. Sorcin has four putative Ca-binding domains, two of which exhibit strong homology to calmodulin "EF hand" motifs. Calcium binding directly to sorcin has been demonstrated by *in vitro* assays. Sorcin is closely related to members of calpain and sarcoplasmic Ca<sup>2+</sup>-binding protein subfamilies. Sorcin undergoes calcium-dependent translocation from the cytosol to cellular membranes. Sorcin binds to and modulates ryanodine receptors and is widely distributed including heart and brain tissues. At the subcellular level, sorcin localizes to T tubule junctions of cardiac sarcoplasmic reticulum.

## REFERENCES

1. Van der Blik, A.M., et al. 1986. A 22 kDa protein (sorcin/V19) encoded by an amplified gene in multidrug-resistant cells, is homologous to the calcium-binding light chain of calpain. *EMBO J.* 5: 3201-3208.
2. Meyers, M.B., et al. 1987. Sorcin (V19), a soluble acidic calcium-binding protein overproduced in multidrug-resistant cells. Identification of the protein by anti-sorcin antibody. *Biochem. Pharmacol.* 36: 2373-2380.
3. Moncrief, N.D., et al. 1990. Evolution of EF-hand calcium-modulated proteins. I. Relationships based on amino acid sequences. *J. Mol. Evol.* 30: 522-562.
4. Meyers, M.B., et al. 1995. Calcium-dependent translocation of sorcin to membranes: functional relevance in contractile tissue. *FEBS Lett.* 357: 230-234.
5. Meyers, M.B., et al. 1995. Association of sorcin with the cardiac ryanodine receptor. *J. Biol. Chem.* 270: 26411-26418.
6. Meyers, M.B., et al. 1998. Sorcin associates with the pore-forming subunit of voltage-dependent L type Ca<sup>2+</sup> Channels. *J. Biol. Chem.* 273: 18930-18935.

## CHROMOSOMAL LOCATION

Genetic locus: SRI (human) mapping to 7q21.12; Sri (mouse) mapping to 5 A1.

## SOURCE

sorcin (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of sorcin 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-12301 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

sorcin (C-20) is recommended for detection of sorcin 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), 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).

sorcin (C-20) is also recommended for detection of sorcin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for sorcin siRNA (h): sc-41016, sorcin siRNA (m): sc-41017, sorcin shRNA Plasmid (h): sc-41016-SH, sorcin shRNA Plasmid (m): sc-41017-SH, sorcin shRNA (h) Lentiviral Particles: sc-41016-V and sorcin shRNA (m) Lentiviral Particles: sc-41017-V.

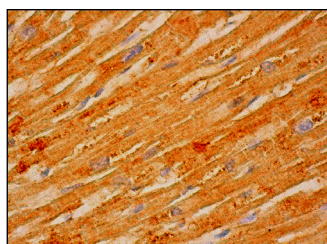
Molecular Weight of sorcin: 22 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



sorcin (C-20): sc-12301. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

## RESEARCH USE

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

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Try **sorcin (39-M): sc-100859**, our highly recommended monoclonal alternative to sorcin (C-20).